Beginners guide to Koha

Nadhiya D

Beginners Guide to **Koha**

Nadhiya D

Thirunavukkarasu T C

Book Title	:	Beginners Guide to Koha ILMS
Author	:	Mrs. Nadhiya D
First Edition	:	2023
Number of Pages	:	108 pages
ISBN	:	978-93-5759-840-8
© Copyright	:	Author
Price	:	Rs. 99
Published by	:	Nadhiya D

Old No. 9 / New No 18, New Street, Sankaran Palayam, Vellore - 632001.

All possible precautions have been taken to ensure that the information provided in the book is correct. Yet the author shall not be responsible for any printing error or damages arising out of use of this information. However, your valuable suggestions are welcome for the improvement of this book which may be incorporated in the subsequent editions of this book.

Preface

Writing this book has been a meaningful journey, and I am deeply thankful for the support and love I received along the way. I could not have done this without the important people in my life who stood by me during every step. First and foremost, I want to thank my father Mr. M. Devaraj and mother Mrs. D. Jagatheeswari. From my early days, they have been my biggest source of strength. Their love, patience, and guidance have shaped me into the person I am today. They taught me the value of hard work, honesty, and kindness. Whatever I have achieved in life, it is because of their constant encouragement and blessings. To my husband Mr. T.C. Thirunavukkarasu, I offer my heartfelt thanks. Your quiet support, endless patience, and belief in me helped me stay strong during difficult times. You gave me the space and time I needed to work on this book, and your gentle reminders and faith kept me going when I doubted myself. I am also truly grateful to my friends—each one of you has played a special role in my life. Your kind words, thoughtful advice, and joyful presence have lifted my spirits. Whether through simple chats or deep conversations, your support has given me comfort and clarity.

This book is not just my work—it is a reflection of all the love and encouragement I have received from you all. Thank you for walking with me on this journey.

With love and gratitude,
Nadhiya D

CONTENTS

Chapter 1: Introduction to Integrated Library Management Systems (ILMS)

- Definition and Importance of ILMS
- Overview of Popular ILMS Software
- Introduction to Open-Source Software and Koha ILMS
- History and Evolution of Koha
- Key Features and Benefits of Koha

Chapter 2: Installation and Setup of Koha

- System Requirements for Koha Installation
- Step-by-Step Installation Guide (Linux Environment)
- Configuring the Web Interface
- Overview of Cron Jobs in Koha
- Troubleshooting Common Installation Issues

Chapter 3: Koha System Administration

- Overview of the Administration Module
- Creating Libraries and Branches
- User Roles and Permissions (Superlibrarian vs. Librarian)
- System Preferences: Customizing Koha for Your Library
- Setting Up Email and SMS Notifications

Chapter 4: Cataloging in Koha

- Understanding MARC21 and Metadata Standards
- Adding Bibliographic Records
- Managing Authorities and Controlled Vocabularies
- Attaching Holdings: Items and Barcodes
- Importing and Exporting Records (Z39.50/SRU)

Chapter 5: Circulation and Patron Management

- Registering and Managing Patrons
- Circulation Policies and Rules (Loan Periods, Renewals)
- Issuing, Returning, and Reserving Items
- Fines and Fees Management
- Generating Circulation Reports

Chapter 6: Acquisition and Serials Management

- Acquisition Workflow in Koha
- Ordering, Receiving, and Invoicing Items
- Managing Budgets and Funds
- Vendor Management
- Serials Management: Subscriptions and Claims

Chapter 7: Online Public Access Catalogue (OPAC)

- Overview of OPAC and Its Features
- Customizing the OPAC Interface
- Searching and Browsing in OPAC
- Patron-Self Services: Account Management, Reservations
- Integrating OPAC with Social Media and Discovery Tools

Chapter 8: Reports and Data Management

- Overview of the Reports Module
- Creating SQL-Based Custom Reports
- Generating Library Statistics (Usage, Circulation, etc.)
- Scheduling and Exporting Reports
- Data Backup and Recovery Strategies

Chapter 9: Koha for Digital Libraries and Open Access Resources

- Integration with Institutional Repositories
- Managing eBooks and Digital Collections
- Linking with Open Access Resources and APIs
- Using Koha for Hybrid Libraries

Chapter 10: Troubleshooting and Best Practices

- Common Errors and How to Fix Them
- Performance Optimization Tips
- Security Best Practices
- Regular Maintenance Checklist
- Community Support and Documentation

Chapter 11: Migration to Koha ILMS

- Planning for Migration (Data Mapping and Cleanup)
- Importing Patron, Bibliographic, and Item Data
- Testing and Verification of Imported Data
- Transitioning from Legacy Systems

Chapter 12: Future Developments and Conclusion

- Upcoming Features in Koha
- Active Community and Global Users of Koha
- Case Studies: Successful Koha Implementations
- Final Thoughts on Koha's Impact on Library Automation

Chapter 1: Introduction to Integrated Library Management Systems (ILMS)

Definition and Importance of ILMS

An **Integrated Library Management System (ILMS)** is a comprehensive software solution that manages and automates the essential functions of a library, such as cataloging, acquisitions, circulation, serial management, and reporting. ILMS serves as the backbone of library operations, enabling efficient management of resources and improving the user experience for both library staff and patrons.

The importance of ILMS lies in its ability to streamline workflows, reduce manual efforts, and enhance operational efficiency. It ensures seamless collaboration between different library departments, facilitates quick access to information, and improves decision-making by generating insightful reports and statistics. With an ILMS, libraries can provide better services by managing both physical and digital collections while supporting activities like interlibrary loans and self-service through OPAC (Online Public Access Catalogue).

Overview of Popular ILMS Software

There are various ILMS solutions used worldwide, catering to academic, public, special, and school libraries. Some popular ILMS platforms include:

1. **Koha**
    - The first open-source ILMS.
    - Widely adopted by libraries of all types for its flexibility and customization options.
    - Supports multilingual interfaces and community-driven development.
2. **Evergreen**
    - Another open-source ILMS, designed for scalability.
    - Popular among consortia and large public libraries.
    - Focuses on efficient handling of large catalogs and multi-branch operations.
3. **Aleph (Ex Libris)**
    - A commercial ILMS known for its robust functionality and scalability.
    - Primarily used by academic and research libraries.
4. **Sierra (Innovative Interfaces)**
    - A commercial ILMS offering comprehensive solutions for library management.
    - Integrates well with discovery systems and supports advanced analytics.
5. **WorldShare Management Services (OCLC)**
    - A cloud-based ILMS used by academic libraries.
    - Supports resource sharing, metadata management, and digital content integration.

Each ILMS platform differs in terms of licensing (open-source or proprietary), target audience, and functionality. The choice of ILMS depends on the library's size, budget, and specific operational requirements.

Introduction to Open-Source Software and Koha ILMS

Open-source software is software that is freely available, with its source code openly shared. Libraries benefit from open-source ILMS like Koha by avoiding hefty licensing fees while gaining the ability to customize the software to suit their specific needs. The collaborative nature of open-source communities also ensures that software like Koha is continuously updated and improved.

Koha ILMS is a pioneer among open-source ILMS platforms. First developed in 1999 for a small library in New Zealand, Koha has evolved to become a leading ILMS globally. Libraries of all sizes and types have adopted Koha due to its flexibility, multilingual support, and extensive range of features. Koha's open-source nature ensures libraries have complete control over the software, and they can either develop their own modules or rely on a global community of developers and service providers for support.

History and Evolution of Koha

Koha's journey began in **1999**, when the Horowhenua Library Trust in New Zealand sought an innovative library management system. Existing proprietary solutions did not

meet their requirements, so they commissioned Katipo Communications to develop the world's first **open-source library management system**. The software was named Koha, a Māori word meaning "gift," symbolizing the community spirit behind the project.

The initial version of Koha was launched in **2000**, focusing on basic functionalities like circulation and cataloging. Over the years, Koha expanded to include modules for acquisitions, serials, reporting, and more. It gained traction beyond New Zealand and was soon adopted by libraries worldwide, including in **India, France, the United States, and Africa**.

Key milestones in Koha's development include:

- **2002**: Introduction of the Online Public Access Catalogue (OPAC).
- **2005**: Release of a more advanced framework, enabling modular development.
- **2010**: Adoption of MARC21 standards for cataloging, making Koha compatible with global metadata practices.
- **2012 and beyond**: Active community involvement drives rapid feature development and innovation.

Today, Koha has become a leading ILMS for libraries looking for open-source, flexible solutions. Its success lies in the **global network of users and developers** contributing to its development.

Key Features and Benefits of Koha

Koha offers a comprehensive set of features that cater to the needs of various types of libraries, making it one of the most versatile ILMS platforms available. Some of the key features include:

1. **Modular Architecture**
    - Koha's modules cover the entire range of library functions, including cataloging, circulation, acquisitions, serials management, and reporting. Each module can be customized to meet specific needs.
2. **MARC21 and Z39.50 Compliance**
    - Supports international cataloging standards, enabling seamless integration with bibliographic databases and resource-sharing networks.
3. **User-Friendly OPAC Interface**
    - Offers a web-based, responsive OPAC that patrons can use to search the catalog, place holds, renew books, and access their accounts online.
4. **Flexible Reporting System**
    - The SQL-based reports module allows librarians to create custom reports and generate meaningful insights into library operations.
5. **Multilingual Support**
    - Supports multiple languages, making it ideal for libraries in multilingual communities.
6. **Community-Driven Development**

    - Koha's open-source nature ensures that new features and improvements are frequently added by a global community of developers and libraries.
7. **Web-Based Interface**
    - Both the staff interface and OPAC are accessible through a web browser, eliminating the need for local installations and enabling remote access.
8. **Integration with Digital Resources**
    - Koha can be integrated with digital library platforms, institutional repositories, and e-resource management tools.

Benefits of Koha

- **Cost-Effective:** No licensing fees, making it accessible to libraries with limited budgets.
- **Highly Customizable:** Libraries can tailor the system to their specific workflows.
- **Scalable:** Suitable for libraries of all sizes, from small community libraries to large consortia.
- **Active Community Support:** Libraries can rely on a global network for troubleshooting, updates, and development.

Conclusion

In conclusion, Koha stands out as a **reliable, adaptable, and cost-effective solution** for libraries seeking to modernize their operations. Its open-source model aligns with the evolving needs of libraries, offering flexibility, community collaboration, and continuous innovation. Koha embodies the principles of open access and resource sharing, empowering libraries to better serve their users in today's digital age. This book will explore each aspect of Koha in detail, guiding librarians through its installation, configuration, and use for effective library management.

Chapter 2: Installation and Setup of Koha

This chapter provides a detailed guide for installing and setting up Koha ILMS. We will focus on installing Koha on a Linux environment, configuring the web interface, setting up cron jobs, and resolving common installation issues.

System Requirements for Koha Installation

Before installing Koha, ensure your system meets the following minimum requirements:

1. Hardware Requirements

- **Processor**: 1 GHz or faster (dual-core recommended)
- **RAM**: 2 GB (4 GB or more for better performance)
- **Storage**: 20 GB of available disk space (adjust based on the size of your collection and logs)
- **Network**: Stable internet connection for downloading dependencies and setting up OPAC

2. Software Requirements

- **Operating System**: Linux (Debian and Ubuntu are the most commonly supported)
- **Web Server**: Apache2
- **Database Server**: MySQL or MariaDB
- **Programming Language**: Perl (Koha is built using Perl)
- **Other Dependencies**: Git, cURL, OpenSSH, and several Perl modules

Using a **Debian-based Linux environment** (like Ubuntu) is recommended, as it simplifies the installation process through built-in repositories and package managers.

Step-by-Step Installation Guide (Linux Environment)

Follow these steps to install Koha on a Debian or Ubuntu system.

1. Update the System

Begin by updating your package list and upgrading the system to ensure all dependencies are up-to-date:
bash

```
sudo apt update && sudo apt upgrade -y
```

2. Add the Koha Repository

Add the official Koha repository to your system:
bash

```
echo 'deb http://debian.koha-community.org/koha stable main' | sudo tee /etc/apt/sources.list.d/koha.list
```

Then, import the GPG key for verification:
bash

```
wget -q -O- http://debian.koha-community.org/koha/gpg.asc | sudo apt-key add -
```

3. Install Koha Packages

Update your package list again and install Koha:
bash

```
sudo apt update
sudo apt install koha-common -y
```

4. Configure Apache

Enable the required Apache modules:
bash

```
sudo a2enmod rewrite
sudo a2enmod cgi
```

Restart the Apache server to apply changes:
bash

```
sudo systemctl restart apache2
```

5. Set Up the Koha Instance

Create a Koha instance (e.g., library):
bash

```
sudo koha-create --create-db library
```

6. Set the Domain Name

Edit the Apache configuration to ensure that Koha works correctly on your domain or IP address:
bash

```
sudo nano /etc/koha/koha-sites.conf
```

Modify the following line to set the correct domain:
makefile

INTRAPORT="8080"
INTRASUFFIX="-intra"
DOMAIN="your_domain_name_or_IP"

Restart Apache once more:
bash

sudo systemctl restart apache2

Configuring the Web Interface

After installation, you need to configure the **staff interface** and **OPAC interface** through the browser.

1. Access the Staff Interface

- Open your web browser and navigate to:
  http://your_IP_or_domain:8080/
  This will open the staff login page.
- Use the default credentials provided during installation or the koha-admin account to log in.

2. Access the OPAC Interface

- The OPAC can be accessed via:
  http://your_IP_or_domain/

3. Basic Configuration through the Web Interface

Once logged into the staff interface:

- Set **Libraries and Branches**: Go to **Administration > Libraries** and add your library information.
- Configure **System Preferences**: Under **Administration > Global System Preferences**, set preferences for cataloging, circulation, and OPAC settings.
- Add **Users and Roles**: Define user roles such as librarians and patrons to ensure correct permissions.

Overview of Cron Jobs in Koha

Cron jobs are scheduled tasks that run automatically at specified times. Koha uses cron jobs for tasks like generating overdue notices, sending email reminders, and generating reports.

Setting Up Cron Jobs for Koha

1. Edit the crontab for the Koha instance:
   bash

   ```
   sudo crontab -e -u koha-library
   ```

2. Add the following cron job entries for common tasks:
   ruby

   ```
   # Run overdue notices every morning at 8 AM
   0 8 * * * /usr/share/koha/bin/cronjobs/overdue_notices.pl --library library

   # Generate circulation statistics every midnight
   0 0 * * * /usr/share/koha/bin/cronjobs/statistics.pl --type circulation
   ```

3. Save the file and ensure the cron service is running:
   bash

   sudo systemctl restart cron

Troubleshooting Common Installation Issues

During installation or setup, you might encounter some challenges. Here are a few common issues and their solutions:

1. Koha Interface Not Loading

- **Possible Cause**: Apache server not configured properly or not running.
- **Solution**: Restart Apache:

  bash

  sudo systemctl restart apache2

2. Database Errors during Installation

- **Possible Cause**: Incorrect MySQL or MariaDB configuration.
- **Solution**: Verify the database setup and ensure the correct permissions are assigned:

  bash

  sudo mysql -uroot -p

Check if the koha_library database exists and has the necessary user privileges.

3. Cron Jobs Not Running

- **Possible Cause**: Cron service is not running, or incorrect syntax in the crontab.
- **Solution**: Restart the cron service:

  bash

  sudo systemctl restart cron

4. Email Notifications Not Working

- **Possible Cause**: Email server configuration missing or incorrect.
- **Solution**: Configure SMTP settings correctly in **System Preferences** under **Email**.

5. Koha Admin Password Issues

- **Possible Cause**: Forgotten admin password or incorrect credentials.
- **Solution**: Reset the password:

  bash

  sudo koha-passwd library

Conclusion

This chapter covered the essential steps for installing and setting up Koha ILMS, from system requirements to configuring the web interface. Setting up **cron jobs** ensures the smooth operation of background processes, and troubleshooting common installation issues helps librarians avoid disruptions during implementation.

The next chapters will explore the core modules of Koha, including **cataloging, circulation, and acquisitions**, to help users unlock the full potential of this powerful ILMS.

Chapter 3: Koha System Administration

This chapter focuses on the administrative features and settings within Koha ILMS, which allow library staff to manage the platform effectively. From creating libraries and branches to configuring system preferences and managing users, this chapter provides a practical overview of essential administrative tasks.

Overview of the Administration Module

The **Administration module** in Koha serves as the control center, where library staff can customize system settings to align with operational needs. Key functionalities include:

- Creating and managing libraries and branches
- Defining user roles and permissions
- Configuring system preferences for circulation, cataloging, and OPAC
- Setting up email notifications
- Back-end configuration of various modules like acquisitions, serials, and reports

Koha's web-based interface makes system administration easy, with each section accessible through an intuitive menu.

Creating Libraries and Branches

Koha supports multiple libraries or branches under the same instance. This feature is particularly useful for library consortia or organizations with multiple branches.

Steps to Add a Library or Branch:

1. **Navigate to:**
   Administration > Libraries, Branches, and Groups
2. Click on **New Library** to add a new branch.
3. Fill in the required fields:
   - **Library Code**: A short code identifying the library (e.g., ACL for Anna Centenary Library).
   - **Library Name**: The full name of the library or branch.
   - **Library Address and Contact**: Physical address, phone number, and email.
4. Click **Save**.

Each branch can have unique circulation rules and collections, allowing better management and reporting.

User Roles and Permissions (Superlibrarian vs. Librarian)

Koha provides a range of **user roles** to control access to system features. This ensures that staff members only have access to the functions required for their role.

1. Key Roles

1. **Superlibrarian:**
   - Has full access to all features and administrative settings.
   - Can add, edit, and delete system configurations and user accounts.

2. **Librarian:**
    - Limited to cataloging, circulation, and basic operations.
    - Cannot change administrative settings or access high-level reports.
3. **Library Assistant:**
    - Focuses on circulation and front-desk operations.
4. **Patron:**
    - Limited to OPAC features (search, request, renew).

2. Assigning Roles

1. Go to **Administration > Users and Permissions**.
2. Add a new user or edit an existing one.
3. Select the appropriate role (e.g., Librarian, Assistant).
4. Save the changes.

Roles can be customized to create tailored permissions for specific needs.

System Preferences: Customizing Koha for Your Library

The **System Preferences** section allows libraries to tailor Koha's behavior according to their requirements. It provides a wide range of configuration options.

Key Preferences to Configure:

1. Circulation Preferences:
    - Loan periods, overdue fines, and renewal limits.

- Issuing rules based on patron categories and item types.

2. Cataloging Preferences:
   - Enable or disable MARC21 frameworks.
   - Set default templates for cataloging new items.

3. OPAC Preferences:
   - Customize the OPAC homepage with the library's branding.
   - Enable or disable self-checkout and book reservations.

4. Email Notifications:
   - Configure email settings for overdue reminders and alerts.
   - Set up SMTP servers for sending automated emails.

Steps to Access System Preferences:

1. Go to **Administration > Global System Preferences**.
2. Navigate through the tabs (Circulation, Cataloging, OPAC, etc.).
3. Adjust the settings according to your library's policies.
4. Save the changes.

These preferences allow Koha to align with library-specific workflows and policies.

Setting Up Email and SMS Notifications

Koha can send **email and SMS notifications** for overdue items, hold availability, and other alerts, improving communication with patrons.

1. Steps to Set Up Email:

1. Go to **Administration > System Preferences**.
2. Under the **Email** tab, configure the SMTP server settings (e.g., smtp.gmail.com).
3. Set the email address from which notifications will be sent.
4. Test the email settings to ensure correct configuration.

2. SMS Notifications:

- Some libraries use third-party SMS gateways to send text messages.
- The SMS settings can be integrated through **custom scripts** in cron jobs.

Back-End System Configuration

Koha's administration module also provides **back-end configurations** for modules like acquisitions and serials.

- **Acquisitions Configuration:**
  Set budgets and funds, define vendor details, and configure approval processes.
- **Serials Management:**
  Configure subscription patterns, check-in intervals, and claims.

These configurations ensure that staff can efficiently manage workflows in acquisitions and serial processing.

Illustration of Administration Module in Sequential steps

Figure 1: Login to Access Staff

Login to access staff interface

1. **Username:** Enter the username you created for the patron

2. **Password:** Enter the password you created

3. **Library:** This is the library staff interface you want to log into. The options are either: My library or the library you installed/created. Leaving the default selected option of My library is fine to log in with first time.

Click the ***Login*** button to access the staff interface

Login screen

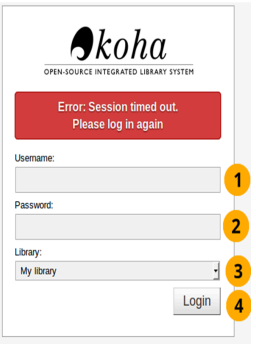


Figure 2: Staff Interface

Staff interface

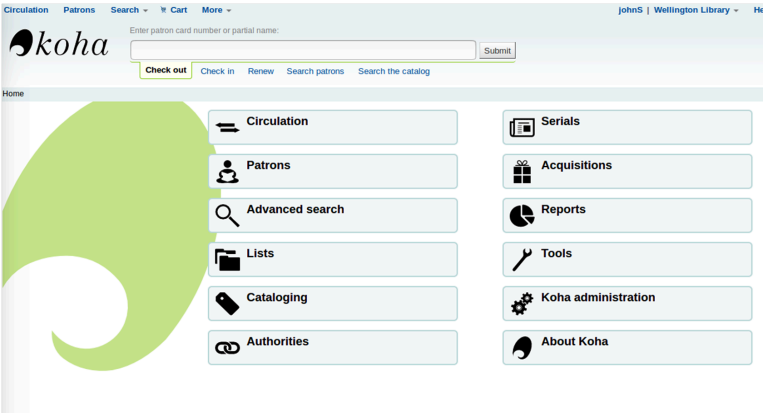


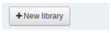
Figure 3: Create a library

Create a library

To add a new library:

Administration > Basic Parameters > Libraries

Click **'New library'**



The top of the form asks for some basics about the library

1. The library code should not contain any spaces and be 10 or fewer characters. This code will be used as a unique identifier in the database.

2. The name will be displayed on the OPAC wherever the library name displays to the public and should be a name that makes sense to your patrons.

3. Next you can enter basic contact info about the branch

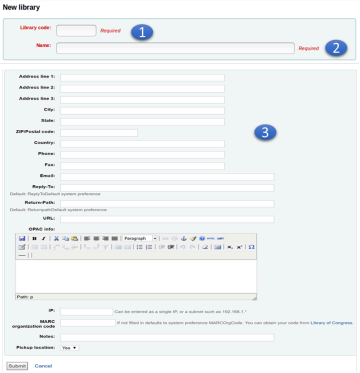


Figure 4: Item Types

Item types

Koha allows you to organize your collection by item types and collection codes.

Administration > Basic parameters > Item types

Item types typically refer to the material type (book, cd, dvd, etc), but can be used in any way that works for your library.

Image	Code	Description	Search category	Not for loan	Hide in OPAC	Rental charge	Daily rental charge	Hourly rental charge	Default replacement cost	Processing fee (when lost)	Checkin message	Library limitations	Actions
BOOK	BK	Books				0.00	0.00	0.00	15.00	5.00		No limitation	Edit Delete
COMPUTER FILES	CF	Computer Files				5.00	0.00	0.00	0.00	0.00		No limitation	Edit Delete
PERIODICAL	CR	Continuing Resources				5.00	0.00	0.00	0.00	0.00		No limitation	Edit Delete
MAP	MP	Maps				5.00	0.00	0.00	0.00	0.00		No limitation	Edit Delete
KIT	MX	Mixed Materials				5.00	0.00	0.00	0.00	0.00		No limitation	Edit Delete
CD	MU	Music				5.00	0.00	0.00	0.00	0.00		No limitation	Edit Delete
REFERENCE	REF	Reference		Yes					0.00	0.00		No limitation	Edit Delete
DVD	VM	Visual Materials		Yes					0.00	0.00		No limitation	Edit Delete

Figure 5: Create a Item Type

Create a Item type

Administration > Basic parameters > Item types

1. ***Item type code***: Code consisting of up to 10 letters
2. ***Description:*** Sentence describing what the item type is.
3. Save Changes

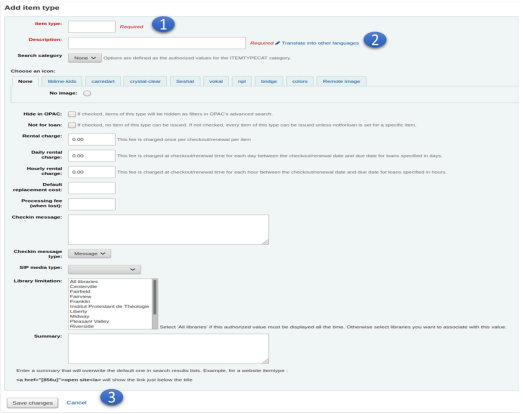


Figure 6: Create a Item Type

Create a patron category

Koha requires at least one patron category in order to add patrons.

A patron category requires:

- Category code
- Description
- Overdue notice required
- Category type
- Enrolment period: In months OR Until date

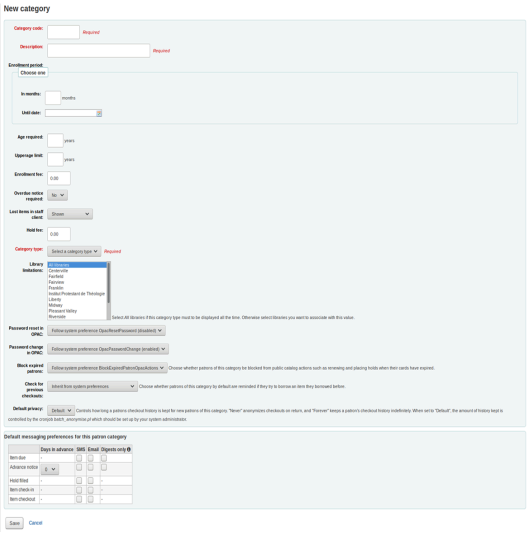


Figure 7: Create a Item Type

Create a Patron category

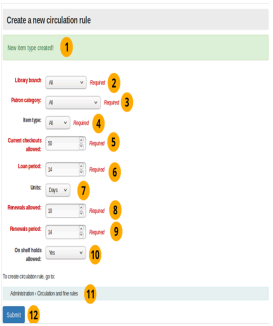
1. ***Category code:*** Code consisting of up to 10 letters.
2. ***Description:*** Sentence describing what the patron category is.
3. ***Overdue notice required dropdown button:*** Set by default to 'No'. This specifies if you want the patron category to receive overdue notices.
4. ***Category type:*** This makes the category created a staff member.
5. ***Enrolment period-In months:*** This is the number of months that the patrons created from this patron category are enrolled for.
6. ***Enrolment period-Until date:*** Select a date from the interactive datepicker calendar icon which appears when you click on this input box. The date you choose will be the enrolment end date for patrons created from this patron category.
7. ***Path to create patron category:*** More patron categories can be created or altered by going to Administration -> Patron categories.
8. Click the ***Submit*** button to create the patron category.

Figure 8: Create a Item Type

Create a Circulation Rule

Here you are creating a rule which applies the pre-defined organisational decisions of your library as to what restrictions you place on patrons borrowing items.

1. ***Item type creation message:*** Indicates if the item type was created successfully
2. ***Library branch dropdown box:*** This is the library (or libraries) you want to apply the circulation rule to. By default it is set to *All*, however you can select a singular library to apply the rule to from the dropdown box.
3. ***Patron categories dropdown box:*** This is the patron categories you want to apply the circulation rule to. As with *Library branch* it is set to *All* by default but more options are available.
4. ***Item type dropdown box:*** This is the item types that you want the circulation rule to apply to. Again more options are available than the default selected *All* option.
5. ***Current checkouts allowed:*** This is the number of items allowed from the selected library, for selected patron categories and of the selected item type. Set to 50 by default.
6. ***Loan period:*** Number of days or hours that an item is allowed out for. Set to 14 by default.
7. ***Units dropdown box:*** Set by default to *Days*, the unit selecting in this field is applied to the numerical values written into **Loan Period** and **Renewals Period**
8. ***Renewals Allowed:*** Number of times a item can be renewed. Set to 10 by default.
9. ***Renewals Period:*** Number of days or hours that a renewal lasts for. Set to 14 by default.
10. ***On shelf holds allowed dropdown box:*** If items can be held whilst they are on the shelf.
11. ***Path to create circulation rule:*** Circulation rules can be created or altered by going to Administration -> Circulation and fines rules
12. Click the ***Submit*** button to create the circulation rule.



Conclusion

Effective administration is essential for the smooth functioning of any library system. Koha's **Administration Module** provides all the necessary tools to configure the platform according to the library's requirements. By setting up **libraries, roles, and system preferences**, library staff can ensure that Koha operates efficiently. The next chapter will delve into **cataloging**, where we explore how to create and manage bibliographic records effectively in Koha.

Chapter 4: Cataloging in Koha

Cataloging is one of the core modules of Koha ILMS, enabling libraries to create, manage, and organize bibliographic records. This chapter provides an overview of the cataloging process, discusses MARC21 standards, and offers a step-by-step guide for adding records in Koha.

Understanding MARC21 and Metadata Standards

MARC21 (Machine-Readable Cataloging) is a widely used metadata standard for cataloging library resources. It allows bibliographic data to be encoded in a structured format, facilitating data sharing and interoperability between libraries and databases.

Each MARC21 record contains:

- **Leader**: Contains information about the record's type and status.
- **Control Fields**: Include fixed-length data elements, such as the date and place of publication.
- **Data Fields**: Store bibliographic information (e.g., title, author, ISBN) in structured tags like **245** (title) and **100** (author).

Koha supports MARC21 and other metadata frameworks, allowing libraries to catalog various resources such as books, journals, e-books, and multimedia.

Adding Bibliographic Records in Koha

Steps to Create a New Record:

1. **Access the Cataloging Module:**
   - Navigate to **Cataloging > New Record**.

2. **Choose a MARC Framework:**
   - Select the appropriate framework (e.g., **Books**, **Journals**) to pre-populate relevant MARC fields.

3. **Enter Bibliographic Data:**
   - **Tag 245**: Title (with subfields for title and subtitle).
   - **Tag 100**: Author name.
   - **Tag 260/264**: Publication information (place, publisher, and year).
   - **Tag 020**: ISBN (if applicable).

4. **Add Item (Holdings) Information:**
   - Attach a new item to the record by filling in item-level data such as:
     - **Barcode**
     - **Location**
     - **Item type** (e.g., Fiction, Reference)
     - **Price**

5. **Save and Verify:**
   - Click **Save** to store the record. Use the search function to verify that the record appears correctly in the catalog.

Managing Authorities and Controlled Vocabularies

Koha supports **authority control**, which ensures consistency when entering data such as authors' names or subjects.

1. **Creating an Authority Record:**
    - Go to **Cataloging > New Authority**.
    - Select the appropriate authority type (e.g., **Author**, **Subject**).
    - Enter the authorized form of the name or subject heading.

2. **Linking Authority Records to Bibliographic Records:**
    - When entering data in bibliographic records, use **linked authority fields** to select the appropriate term from the authority file.

Authority control ensures uniform data entry, improves search accuracy, and facilitates data sharing.

Importing and Exporting Records (Z39.50 and SRU)

Koha allows libraries to **import** and **export** bibliographic data through protocols like **Z39.50** and **SRU**, which enable libraries to share and reuse records from other institutions.

Steps to Import Records via Z39.50:

1. **Enable Z39.50/SRU Servers:**
    - Go to **Administration > Z39.50 Servers** and add server details (e.g., Library of Congress).

2. **Search for Records:**
    - In the **Cataloging** module, click **Z39.50 Search**.
    - Enter the search criteria (e.g., ISBN, title) and select the servers to search.

3. **Import the Record:**
    - Select the desired record from the search results and **import** it into Koha. Modify any fields if necessary and save it.

Bulk Import of Records

For large-scale cataloging, Koha provides a **bulk import** feature to add multiple records at once.

Steps to Bulk Import:

1. Prepare the records in **MARC (.mrc)** format.
2. Navigate to **Tools > Stage MARC Records for Import**.
3. Upload the file and map the fields appropriately.
4. Review the staged records and confirm the import.

This feature saves time when migrating data from other systems or adding large collections.

Editing and Deleting Records

1. To Edit a Record:

1. Search for the record using **Catalog Search**.
2. Click **Edit** and modify the required fields.
3. Save the changes to update the catalog.

2. To Delete a Record:

1. Locate the record to be deleted.
2. Click **Delete** and confirm the action.
3. Note: If the record has items attached, those must be removed first.

Batch Item Modification and Deletion

Koha provides tools for **batch modification and deletion** of items, useful when multiple records need updating.

1. Batch Item Modification:

1. Go to **Tools > Batch Item Modification**.
2. Select the items to modify.
3. Apply the desired changes (e.g., change location, update item type).

2. Batch Item Deletion:

1. Go to **Tools > Batch Item Deletion**.
2. Select the items to delete and confirm the deletion.

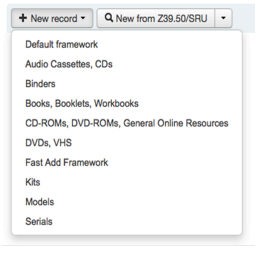
Illustration of Cataloguing Module in Sequential steps

Figure 1: Cataloguing: Adding Records

Cataloguing: Adding records

Records can be added to Koha via original or copy cataloging. You can also choose to use the basic or advanced cataloging interface for all of your work.

Step-1



Step-2

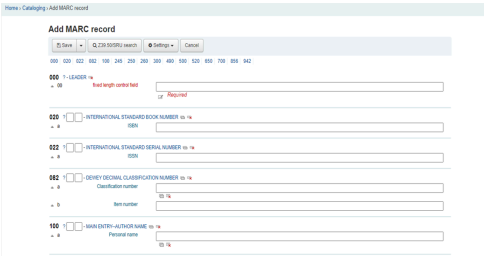
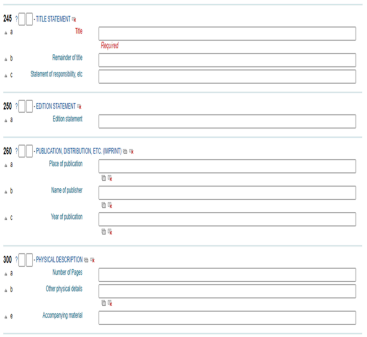


Figure 1a: Cataloguing: Adding Records

Step-3



Step-4

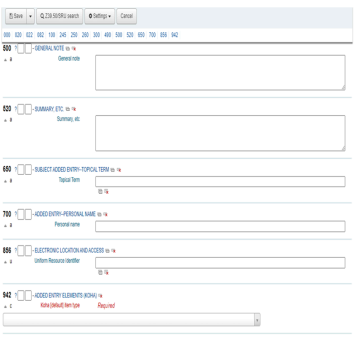
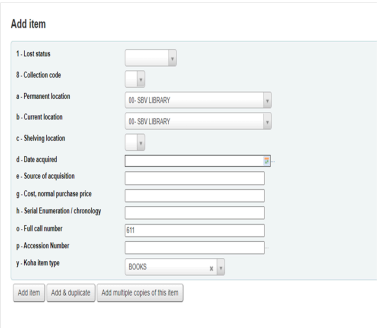
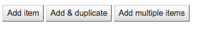


Figure 2: Add / Duplicate / Multiple Items

Add / Duplicate / Multiple Items





These ***3 buttons*** for adding the item

- 'Add item' will add just the one item
- 'Add & duplicate' will add the item and fill in a new form with the same values for you to alter
- 'Add multiple items' will ask how many items and will then add that number of items adding +1 to the barcode so each barcode is unique

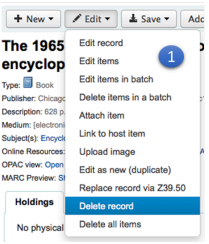
Your added items will appear above the add form once submitted

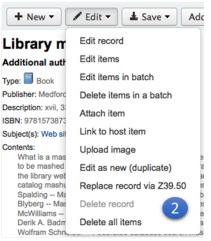
Figure 3: Deleting Records

Deleting records

1. To delete a bibliographic record simply choose the 'Edit' button and select 'Delete record'

1. Bibliographic records can only be deleted once all items have been deleted. If you try to delete a bibliographic record with items still attached you will see that the delete option is grayed out.





Conclusion

Cataloging in Koha is a vital process that ensures accurate and accessible library collections. By following MARC21 standards and leveraging tools like **authority control** and **Z39.50**, libraries can maintain high-quality metadata. The ability to **import, edit, and bulk upload** records makes cataloging efficient, even for large collections. In the next chapter, we will explore the **Circulation module**, which covers patron management, issuing, returning, and tracking items within the library.

Chapter 5: Circulation and Patron Management in Koha

The **Circulation module** is at the heart of Koha's library operations, managing the borrowing, returning, reserving, and renewing of library materials. This chapter provides a detailed guide to circulation policies, patron management, and how to effectively track items to ensure seamless library services.

Registering and Managing Patrons

Koha allows libraries to manage a wide range of **patron types**, such as students, faculty members, and general users. Each patron is assigned a unique **category** with specific borrowing privileges.

1. Steps to Add a New Patron:

1. **Navigate to:**
   Patrons > New Patron
2. **Select Patron Category:**
   Choose the appropriate category (e.g., Student, Faculty, Visitor).
3. **Enter Personal Details:**
   - Name, gender, and date of birth
   - Contact information (email, phone)
   - Address and additional notes (if applicable)
4. **Create a Username and Password:**
   This allows patrons to log in to the OPAC for self-service.

5. **Issue a Library Card:**
   Assign a **barcode number** to the patron, which will act as their library ID.

2. Managing Patron Accounts:

- **Edit Patron Details:** Modify contact information or update their category if needed.
- **Reset Password:** Help patrons regain access if they forget their password.
- **Suspend Accounts:** Temporarily block access for overdue fines or violations.

Circulation Policies and Rules

Circulation policies govern the **loan period, renewal limits, fines**, and **borrowing privileges** for different types of patrons and materials.

Steps to Configure Circulation Rules:

1. **Navigate to:**
   Administration > Circulation and Fine Rules
2. **Select a Library or Branch:**
   If you manage multiple branches, set rules for each one.
3. **Define Rules for Patron Categories and Item Types:**
   - **Loan Periods:** Specify the number of days an item can be borrowed.
   - **Renewal Limits:** Set how many times an item can be renewed.
   - **Overdue Fines:** Define fines per day for late returns.

4. **Save the Rules:**
   Koha will apply these rules automatically during transactions.

Issuing, Returning, and Renewing Items

The circulation desk handles the core functions of **issuing, returning, and renewing** library items.

1. Issuing an Item:

1. Go to **Circulation > Issue an Item**.
2. Scan the patron's barcode and the item's barcode.
3. Verify that the item is not on hold for another patron.
4. Click **Issue** to complete the transaction.

2. Returning an Item:

1. Go to **Circulation > Return an Item**.
2. Scan the item's barcode.
3. Koha will check for any overdue fines or reservations.
4. Confirm the return and mark the item as available.

3. Renewing an Item:

1. Search for the patron's record or item barcode.
2. Click **Renew** next to the item to extend the loan period.
3. Verify if the item is eligible for renewal based on the configured rules.

Managing Reservations and Holds

Koha allows patrons to **reserve items** online via the OPAC or at the circulation desk. If a reserved item is returned, it becomes available for the next patron in the queue.

Steps to Manage Reservations:

1. Go to **Circulation > Manage Holds**.
2. Search for the item or patron with active holds.
3. Mark the item as **ready for pickup** once it is available.
4. Notify the patron via email or SMS.

Patrons can place **self-reservations** through the OPAC, ensuring fairness by following the first-come-first-served principle.

Fines and Fees Management

Koha automatically calculates **fines** for overdue items based on the circulation rules configured for each branch.

Steps to Manage Fines:

1. Go to **Circulation > Fines**.
2. Search for the patron with outstanding fines.
3. Review the breakdown of the fines (per item or per day).
4. **Collect Payment** or waive the fine if authorized.
5. Issue a receipt to the patron for the payment.

Fines can also be **synchronized with the patron's account** on the OPAC, allowing users to view their outstanding dues online.

Generating Circulation Reports

Koha provides detailed reports on circulation activities, helping libraries analyze trends and optimize operations.

Steps to Generate a Circulation Report:

1. Go to **Reports > Create from SQL**.
2. Select the pre-configured **Circulation Statistics** report or create a custom one using SQL queries.
3. Choose the relevant **parameters** (date range, branch, patron category).
4. Click **Run Report** to generate the results.

These reports can help identify popular titles, peak borrowing times, and delinquent patrons, aiding in decision-making.

Patron Self-Service through OPAC

Koha empowers patrons by providing **self-service options** through the OPAC, reducing staff workload and improving user experience.

Features Available to Patrons on OPAC:

- **Search and Browse the Catalog:** Find books, e-resources, and journals.
- **Place Holds and Reservations:** Request items and get notified when they are ready for pickup.
- **View Account Information:** Check loan history, due dates, and fines.
- **Renew Items Online:** Extend loan periods if eligible.

- **Suggest New Purchases:** Request books or materials not currently in the collection.

Illustration of Patrons Module in Sequential steps

Figure 1: Create a Patron

Create a patron

Path to create patron: Patron's can be created or altered by going to *Patrons->New patron*

1. ***Select Category***
2. ***Surname:*** Surname, or something descriptive
3. ***First name:*** First name, or something descriptive
4. ***Card Number:*** This number must be unique
5. ***Library dropdown box:*** If a library has been created using this onboarding tool, it will be the only option. Otherwise select a random library from the sample libraries installed by the web installer.
6. ***Patron category dropdown box:*** If a patron category was created using this onboarding tool, it will be the only option. Otherwise select the Staff patron category.
7. Select registration data or expiry date
8. Click the ***Save*** button to create the patron account

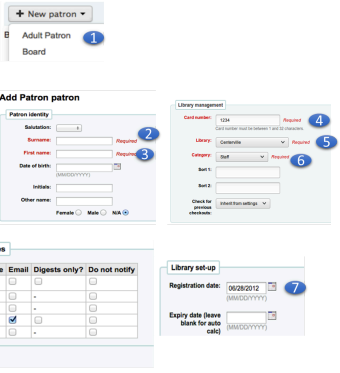


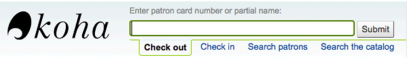
Illustration of Circulation Module in Sequential steps

Figure 1: Check Out (Issuing)

Check out (issuing)

To begin the checkout process you must enter the patron barcode or part of their name. The checkout option appears in three main places:

- *Check out option on the top of the main staff client*
- *Check out option on the quick search bar on the circulation page*



- *Check out option on the patron record*

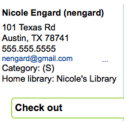


Figure 2: Checking Items Out

Checking items out

To check an item out to a patron, first search for that patron using one of the many options listed above. You will then be presented with the checkout screen.

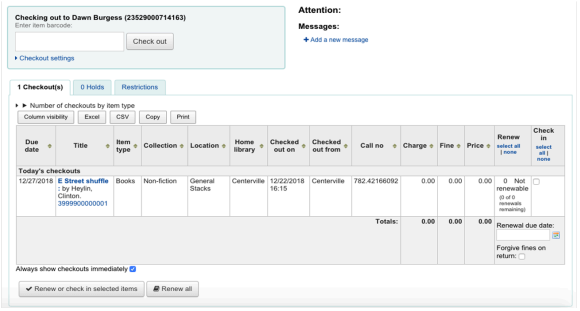


Figure 3: Check In (Returning)

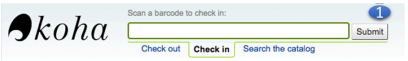
Check in (returning)

Checking in items can be performed from various different locations

1. The check in box on the top of the main staff client

2. The check in link on the patron's checkout summary (and on the checkout summary page)

3. The Check in page under the Circulation menu



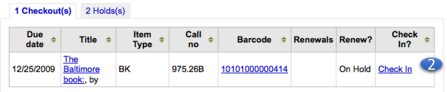
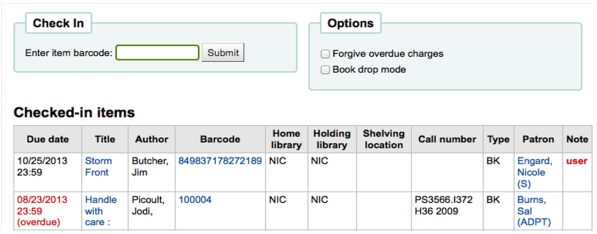


Figure 4: All Checked-In Items Details



Conclusion

The **Circulation module** in Koha is essential for efficient library operations, ensuring smooth management of loans, returns, reservations, and fines. With clear circulation policies and seamless integration with the OPAC, libraries can enhance the patron experience and ensure timely access to resources. In the next chapter, we will explore the **Acquisitions and Serials module**, focusing on how libraries can manage budgets, vendors, and subscription-based materials effectively.

Chapter 6: Acquisition and Serials Management in Koha

The **Acquisition module** in Koha allows libraries to manage the purchase of books, journals, and other materials. It provides tools to manage budgets, vendors, and orders efficiently. The **Serials module** helps libraries handle periodicals and subscription-based materials by tracking issues, renewals, and claims. This chapter provides a step-by-step guide to using both modules effectively.

Acquisition Workflow in Koha

The **acquisition process** involves selecting, ordering, receiving, and invoicing items. Koha streamlines this process, ensuring proper tracking of library resources from the time of purchase to their availability for patrons.

Setting Up Budgets and Funds

Before placing orders, libraries need to create **budgets and allocate funds** to different collections or departments.

Steps to Create a Budget:

1. Go to **Acquisitions > Manage Budgets**.
2. Click **New Budget**.
3. Enter the **budget name** (e.g., 2024 Library Budget) and the total amount.
4. Set the **start and end dates** for the budget period.
5. Save the budget.

Creating Funds under the Budget:

1. Click **Manage Funds** under the budget you just created.
2. Add funds for different collections (e.g., Fiction, Science, Reference).
3. Specify the **amount allocated** for each fund.
4. Save the funds.

Budgets and funds ensure proper financial control and tracking of expenditures.

Vendor Management

Vendors play a key role in acquisitions. Koha allows libraries to maintain a list of **vendors** and manage their information.

Steps to Add a Vendor:

1. Go to **Acquisitions > Vendors**.
2. Click **New Vendor**.
3. Enter the **vendor details**, including:
    - Vendor code (short identifier)
    - Vendor name, contact information, and address
    - Currency (e.g., INR, USD)
4. Save the vendor information.

Having vendor information stored in Koha helps streamline order management and invoicing.

Placing Orders and Receiving Items

Steps to Place an Order:

1. Go to **Acquisitions > New Order**.
2. Select the vendor and the appropriate **fund**.
3. Search for the item in the catalog or create a new bibliographic record.
4. Enter order details:
    - Quantity and price
    - Currency and discount (if any)
5. Click **Save Order**.

Receiving Ordered Items:

1. Go to **Acquisitions > Receive Orders**.
2. Search for the order by vendor or order number.
3. Mark items as **received** and verify the quantity.
4. Save the changes to update the item status.

Once items are received, Koha updates their status in the catalog, making them available for circulation.

Invoicing and Payment Tracking

Invoices help libraries track payments to vendors. Koha allows linking invoices with orders to ensure accurate financial reporting.

Steps to Add an Invoice:

1. Go to **Acquisitions > Invoices**.
2. Click **New Invoice**.

3. Enter the **invoice number** and date.
4. Link the invoice to the relevant **orders**.
5. Save the invoice.

This feature ensures that all expenditures are recorded and linked to the corresponding funds.

Serials Management: Subscriptions and Claims

Managing **serials** like journals and magazines can be complex, given the need to track issues and renewals. Koha's **Serials module** simplifies this process by automating much of the tracking and renewal workflows.

Creating a New Subscription

Steps to Add a Subscription:

1. Go to **Serials > New Subscription**.
2. Select or create a bibliographic record for the serial.
3. Enter subscription details:
    - Vendor
    - Subscription period
    - Frequency (e.g., monthly, bi-weekly)
4. Set the **expected arrival dates** for issues.
5. Save the subscription.

Subscriptions help libraries manage the flow of periodicals efficiently.

Receiving and Claiming Issues

When new issues of a subscribed journal arrive, staff can log their receipt in Koha.

Steps to Receive Issues:

1. Go to **Serials > Receive Issues**.
2. Search for the subscription.
3. Enter the **issue details** (e.g., volume, issue number).
4. Mark it as **received** and save.

If an issue is missing, Koha allows libraries to **claim** it with the vendor.

Claiming Missing Issues:

1. Go to **Serials > Claims**.
2. Search for the subscription with missing issues.
3. Click **Claim** to notify the vendor.

Generating Reports on Acquisitions and Serials

Koha provides several **reports** to track acquisition and serial activities.

Steps to Generate an Acquisitions Report:

1. Go to **Reports > Create from SQL**.
2. Select or create a **custom report** with relevant parameters (e.g., vendor, fund, date).
3. Click **Run Report** to view the results.

Reports help monitor fund usage, vendor performance, and serial subscriptions.

Illustration of Acquisition Module in Sequential steps

Figure 1: Add a new Budget

Add a new budget

If you haven't used Koha before for acquisitions then you'll need to start fresh with a new budget. To add a new budget click the 'New budget' button.

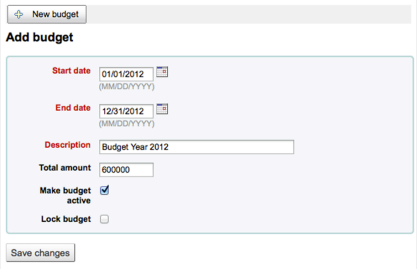


Figure 2: Funds / Add a Fund

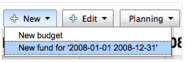
Funds / Add a Fund

More > Administration > Acquisitions > Funds

Add a Fund
A fund is added to a budget.

Important

- A budget must be defined before a fund can be created.
- To add a new fund click the 'New' button and then choose which budget you would like to add the fund to.
- In the form that appears you want to enter the basics about your fund.



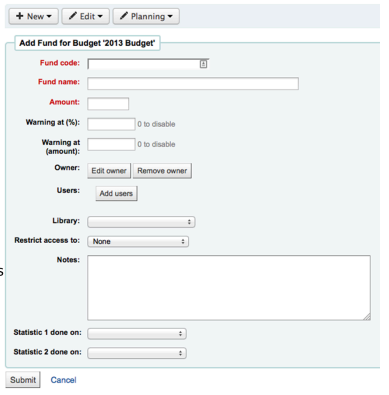
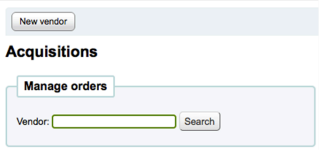


Figure 3: Add a Vendor

Add a vendor

1. To add a vendor click the ‘New vendor’ button on the Acquisitions page
2. The vendor add form is broken into three pieces
3. The first section is for basic information about the vendor



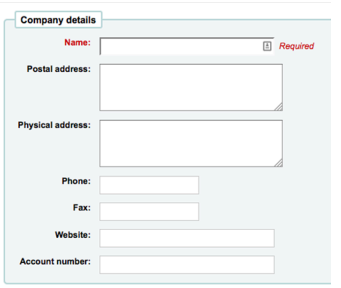
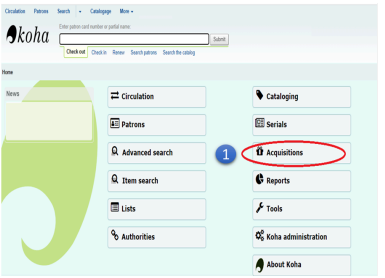


Figure 4: Acquisitions

Acquisitions

1. Click on the Acquisitions Tab
2. Search with Vendor name



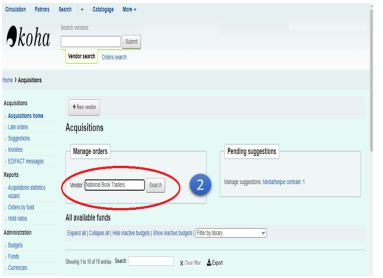
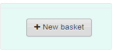


Figure 5: Acquisitions - Searching for Vendor in Koha

Acquisitions – Searching for Vendor in Koha

3. Vendor name will be displayed along with this icon 

4. Click on New Basket

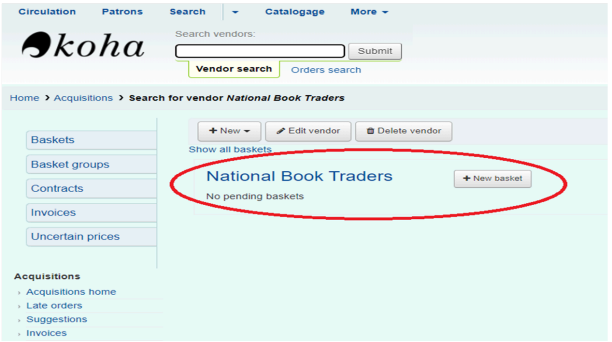
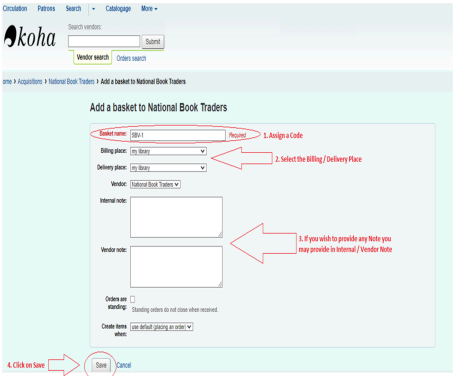


Figure 6: Acquisitions - Creating Basket

Acquisitions – Creating Basket



1. Assign a code (E.g. SBV-1)
2. Select the Billing / Delivery Place
3. If you wish to provide any note enter the same in Internal / Vendor Note
4. Click Save Button

Note:
- *Basket No. which we create should be maintained for the future reference (Mandatory).*
- *It's a continuous numbering*
- *Sample entry given below*

Figure 7: Adding titles in a Basker

Acquisitions – Adding titles in a Basket

1. Click on ***Add to basket***
2. It will be display as ***Add order to basket*** window
3. Select any one listed to add the titles

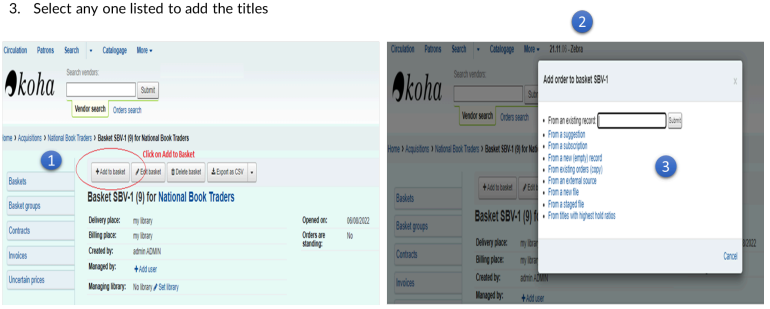
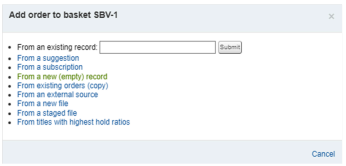
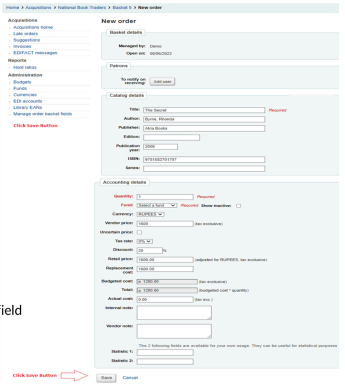


Figure 8: Acquisitions - Adding Titles in a Basket

Acquisitions – Adding titles in a Basket



1. Click on ***From a new (empty) record***
2. It will be display as ***New Order***
3. Enter Title & Other details
4. Enter the Quantity
5. Select the Fund
6. If you know the price, discount details enter the details in the field
7. Click ***Save*** Button

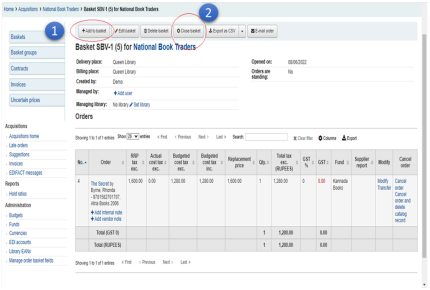


Note: Mandatory Fields are highlighted the text in Koha

Figure 9: Adding titles in a Basket

Acquisitions – Adding titles in a Basket

1. You may add multiple titles by clicking on ***Add to Basket***
2. Once you finish adding titles, click on ***Close Basket*** Button
3. Click ***Yes, close (Y)*** button
4. It will display the below image



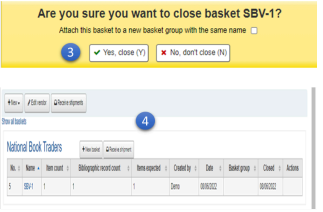
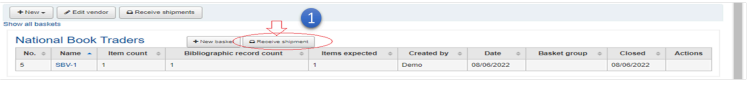
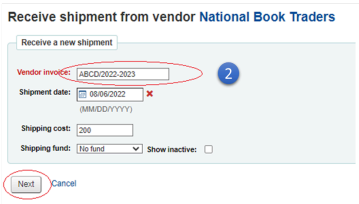

Are you sure you want to close basket SBV-1?
Attach this basket to a new basket group with the same name
3
Yes, close (Y)
No, don't close (N)
4
National Book Traders

Figure 10: Acquisitions - Invoice Receiving

Acquisitions – Invoice Receiving

1. Click ***Receive Shipment*** Button
2. Enter the Vendor ***Invoice*** details and then click on ***Next***
3. Click on ***Receive*** icon





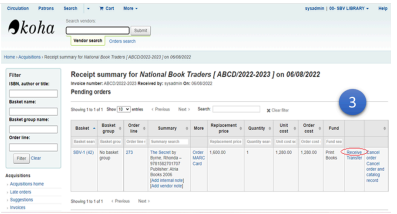


Figure 10a: Acquisitions - Creating Basket

Acquisitions – Invoice Receiving

Enter the required details in the field below and click on ***Add Item*** Button

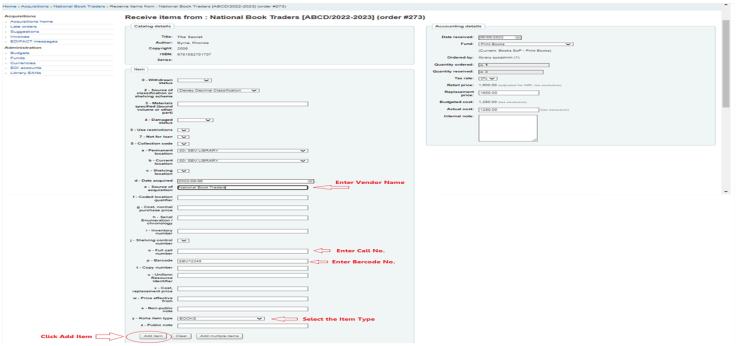
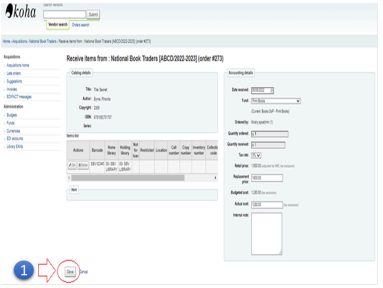

Receive items from : National Book Traders [ABCD/2022-2023] (order #273)
Enter Vendor Name
Enter Call No.
Enter Barcode No.
Select the Item Type
Click Add Item

Figure 10b: Acquisitions - Creating Basket

Invoice Receiving

1. Cross check whether mentioned details are correct, then Click on ***Save*** Button
2. Click on ***Finish Receiving*** Button



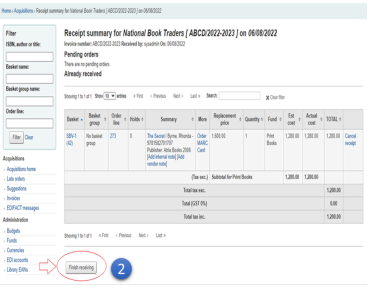


Figure 10c: Acquisitions - Creating Basket

Invoice Receiving

This is the final stage of receiving the Invoice follow the given step below

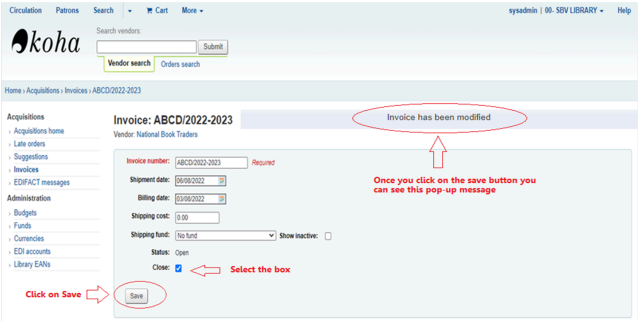


Illustration of Seri Module in Sequential steps

Figure 1: Serials

Serials

1. Go to the Serials module and click ***'New subscription'***
2. 'Vendor' can be found by either searching vendors entered via the Acquisitions module or entering the vendor ID number
3. 'Biblio' is the MARC record you'd like to link this subscription to. This can be done by searching for an existing record by clicking on the 'Search for record' link below the boxes or by entering the biblionumber for a record in the first box. Only if you search will the field between the parenthesis be filled in.
4. Click next

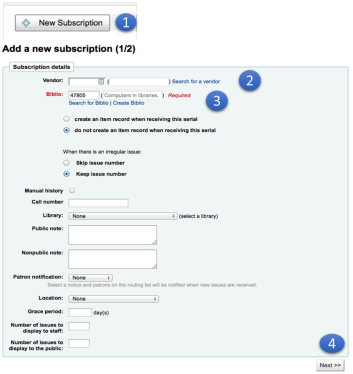


Figure 2: Add a Subscription

Add a subscription

- In 'First issue publication date' you want to enter the date of the issue you have in your hand, the date from which the prediction pattern will start
- There are several pre-defined options for the 'Frequency' of publication all of which are visible alongside your own custom frequencies by visiting 'Manage frequencies'
- 'Subscription length' is the number of issues or months in the subscription. This is also used for setting up renewal alerts
- 'Subscription start date' is the date at which the subscription begins. This is used for setting up renewal alerts
- 'Subscription end date' should only be entered for subscriptions that have ended (if you're entering in a backlog of serials)
- 'Numbering pattern' will help you determine how the numbers are printed for each issue. Patterns entered here are saved and editable at any time by visiting 'Manage numbering patterns'
  - Start with the numbering on the issue you have in hand, the numbering that matches the date you entered in the 'First issue publication' field
  - You can choose to create your own numbering pattern by choosing 'None of the above' and clicking the 'Show/hide advanced pattern' button at the bottom of the form

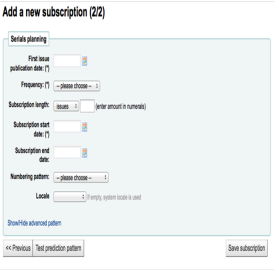
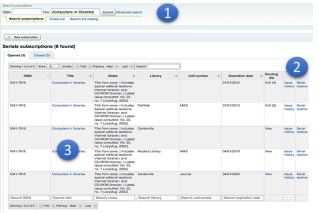


Figure 3: Receiving Issues

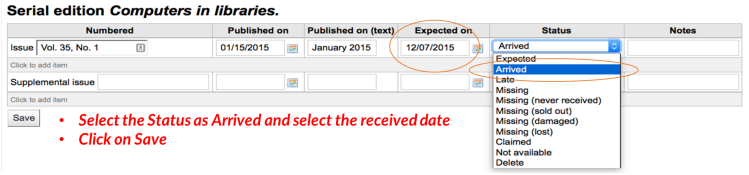
Receiving issues

Issues can be marked as received from several locations.

1. To find a subscription, use the search box at the top of the Serials page to search for the serial you'd like to receive issues for
2. From the search results you can click the 'Serial receive' link or
3. You can click on the subscription title and then click the 'Receive' button.



All three of these options will open up the issue receive form show below:



- ***Select the Status as Arrived and select the received date***
- ***Click on Save***

Conclusion

Koha's **Acquisition and Serials modules** empower libraries to efficiently manage budgets, vendors, and subscription-based resources. By using these tools, libraries can streamline their procurement processes and ensure that both books and periodicals are readily available for patrons. In the next chapter, we will explore **Koha's OPAC (Online Public Access Catalogue)** and how it enhances user engagement and accessibility.

Chapter 7: Online Public Access Catalogue (OPAC) in Koha

The **Online Public Access Catalogue (OPAC)** is a key feature of Koha ILMS that allows patrons to search, browse, and interact with the library's collections online. It enhances user experience by offering self-service features such as renewals, reservations, and account management. This chapter explores the functionalities of Koha's OPAC and provides guidelines for customizing it to meet the needs of your library.

Overview of OPAC and Its Features

The OPAC in Koha provides an intuitive web interface where users can:

- Search for library resources using keywords or filters.
- View item availability (on shelf or checked out).
- Reserve or place holds on items.
- Access digital resources and external links.
- Manage their library accounts (renewals, fines, loan history).
- Submit suggestions for new acquisitions.

Koha's OPAC interface is responsive and accessible from both desktop and mobile devices, providing flexibility to patrons.

Customizing the OPAC Interface

Koha allows libraries to customize the OPAC interface to reflect their branding and optimize user experience. Here are some ways you can modify the OPAC:

1. Adding a Library Logo and Welcome Message

1. Go to **Administration > Global System Preferences > OPAC**.
2. Upload your **library's logo** and set a **welcome message**.
3. Save the changes to display them on the homepage.

2. Changing the OPAC Theme

1. In **Administration > System Preferences**, search for **Bootstrap theme options**.
2. Select from the available themes or create a custom CSS file to match your library's branding.
3. Apply the theme, and preview the changes on the OPAC homepage.

3. Displaying News and Announcements

1. Go to **Tools > News**.
2. Add new announcements or event updates to display them on the OPAC homepage.
3. Set the start and end dates for each announcement.

Searching and Browsing in OPAC

Koha's OPAC provides advanced search capabilities to help users quickly find what they need.

1. Simple Search

- Users can search by **keyword, title, author, or ISBN**.
- The search box is available on every page of the OPAC.

2. Advanced Search

- Patrons can refine their search using multiple filters, such as:
    - **Item type:** Books, Journals, DVDs, etc.
    - **Library/Branch:** Search specific branch collections.
    - **Publication Year:** Narrow results to a particular time frame.
- Boolean operators (AND, OR, NOT) are available for precise searches.

3. Faceted Browsing

- Search results include **facets** (e.g., subject, author, format) on the sidebar, allowing users to filter results dynamically.

Patron Self-Service Features

Koha's OPAC provides several self-service features to empower patrons and reduce the workload on library staff.

1. Account Management

- Patrons can log in to their accounts using their **library ID** and password.
- Once logged in, they can view:
    - **Current loans** and due dates.
    - **Outstanding fines** and payments.
    - **Loan history** of previously borrowed items.

2. Renewals and Reservations

- Patrons can renew items online if no other user has placed a hold.
- They can place **reservations** or holds on checked-out items and receive notifications when the item becomes available.

3. Suggestions for New Purchases

- Patrons can suggest new books or materials through the OPAC.
- Library staff can review these suggestions and decide whether to acquire the requested items.

Integrating OPAC with Digital Resources

Koha's OPAC can link to digital resources and **institutional repositories**, making it a gateway for both physical and online collections.

1. Linking to External Resources

- Add URLs for **e-books, journals, or open-access resources** directly in the bibliographic record.
- Patrons can access these resources through the OPAC.

2. Integrating with Discovery Services

- Koha supports integration with **discovery tools** like EBSCO Discovery Service (EDS) or VuFind, offering a single search interface for all resources.

Notifications and Alerts through OPAC

Koha sends automated **notifications** via email or SMS, keeping patrons informed about their account activities.

Common Notifications:

- **Due Date Reminders:** Sent before the item is due.
- **Overdue Notices:** Sent when an item is overdue.
- **Hold Availability Alerts:** Notifying patrons when a reserved item is ready for pickup.

Library staff can customize the content of these notifications through **Administration > Notices & Slips**.

User Feedback and Ratings

Koha's OPAC encourages patron engagement by allowing them to **submit reviews and ratings** for books and other materials.

Steps to Enable Reviews:

1. Go to **Administration > Global System Preferences > OPAC**.
2. Enable **Patron Reviews and Ratings**.
3. Set review moderation rules, allowing staff to approve or reject reviews.

This feature helps build a vibrant library community by promoting interaction among patrons.

OPAC Usage Statistics

Koha provides insights into OPAC usage, helping libraries analyze patron behavior and improve services.

Generating Usage Reports:

1. Go to **Reports > Create from SQL**.
2. Create a report to track:
    - **Popular search terms.**
    - **Frequently borrowed items.**
    - **Number of reservations and renewals.**

These reports help libraries identify user needs and optimize collections accordingly.

Conclusion

Koha's OPAC serves as a powerful tool for **engaging patrons** and enhancing access to library resources. Its advanced search capabilities, self-service features, and integration with digital collections ensure a seamless user experience. By customizing the OPAC, libraries can reflect their unique identity and improve user satisfaction.

In the next chapter, we will explore **Koha's reporting module**, providing insights into how libraries can generate meaningful statistics to make data-driven decisions.

Chapter 8: Reports and Data Management in Koha

Reports are essential for understanding a library's operations, usage patterns, and overall performance. Koha's **Reports module** provides powerful tools to generate statistics, create custom reports using SQL, and analyze various aspects of library management. In this chapter, we will explore how to generate predefined and custom reports, manage data effectively, and schedule automatic report generation.

Overview of the Reports Module

The **Reports module** in Koha offers predefined reports for common needs and allows librarians to create SQL-based custom reports. It covers key areas such as:

- **Circulation statistics:** Track item loans, renewals, and returns.
- **Acquisition reports:** Monitor fund usage, expenditures, and vendor performance.
- **Cataloging reports:** Get insights into the collection's growth and catalog status.
- **Patron statistics:** Understand user engagement and membership trends.

Reports help library staff identify trends, ensure efficient resource allocation, and make informed decisions.

Generating Predefined Reports

Koha comes with a selection of **predefined reports** that cover the most common library operations. These reports

provide quick access to key statistics without the need for SQL knowledge.

Steps to Generate a Predefined Report:

1. Go to **Reports > Use Saved Reports**.
2. Select a report from the available categories, such as:
    - **Circulation Reports:** Loans by patron category or item type.
    - **Cataloging Reports:** Number of new items added.
    - **Fines Reports:** Outstanding fines grouped by patrons or branches.
3. Adjust the parameters (e.g., date range or library branch).
4. Click **Run Report** to view the results.

These reports can be exported to **CSV or PDF** formats for further analysis.

Creating Custom SQL Reports

Koha offers a flexible way to create **custom reports** using SQL (Structured Query Language). This allows libraries to tailor reports to specific requirements.

Steps to Create a Custom Report:

1. Go to **Reports > Create from SQL**.
2. Click **New Report** and enter a title and description.

3. Write the **SQL query** to extract the desired data. Example SQL query to list all books borrowed in the past month:
   sql

   ```
   SELECT borrowers.surname, borrowers.firstname, items.barcode, biblio.title, issues.date_due
   FROM issues
   JOIN items ON issues.itemnumber = items.itemnumber
   JOIN biblio ON items.biblionumber = biblio.biblionumber
   JOIN borrowers ON issues.borrowernumber = borrowers.borrowernumber
   WHERE issues.date_due >= DATE_SUB(CURDATE(), INTERVAL 30 DAY)
   ORDER BY issues.date_due DESC;
   ```

4. Save the report and **run it** to generate the results.

5. Export the data to CSV or PDF for external use.

SQL reports allow for highly specific queries, providing deep insights into library operations.

Scheduling Reports with Cron Jobs

Koha allows administrators to **schedule reports** to run automatically at specific intervals, using **cron jobs**. This is useful for generating recurring reports such as monthly circulation statistics.

Steps to Schedule a Report:

1. Create the desired report in Koha and note the **report ID**.

2. Edit the **Koha cron job** configuration:
   bash

   ```
   sudo crontab -e -u koha-library
   ```

3. Add a cron job entry to run the report at a specific time:
   ruby

   ```
   0 0 1 * * /usr/share/koha/bin/cronjobs/runreport.pl --report_id=123 --output=/path/to/save/report.csv
   ```

   This example generates the report on the **first day of every month**.

4. Save the cron job configuration and restart the cron service:
   bash

   ```
   sudo systemctl restart cron
   ```

Scheduling reports ensures that staff receives timely updates without manual effort.

Analyzing and Visualizing Data

Koha's reports can be exported to tools like **Microsoft Excel, Google Sheets, or Power BI** for deeper analysis and visualization.

1. Steps to Visualize Koha Data in Excel:

1. Export the report as **CSV** from Koha.

2. Open the CSV file in **Excel**.
3. Use **pivot tables and charts** to create graphs and identify trends.
4. Generate visual reports such as:
    - **Monthly circulation trends.**
    - **Top 10 most borrowed books.**
    - **Fund usage by category.**

These visualizations make it easier to share insights with stakeholders and management.

2. Backing Up and Restoring Data

Koha provides tools to **back up** and **restore data**, ensuring the safety of library records.

3. Steps to Back Up Koha Data:

1. Use the following command to back up the Koha database:

    bash

    sudo mysqldump -u root -p koha_library > koha_backup.sql

2. Store the backup file in a secure location.

4. Steps to Restore Koha Data:

1. Use the following command to restore the database:

    bash

    mysql -u root -p koha_library < koha_backup.sql

2. Restart Koha services to ensure everything works correctly:

   bash

   sudo systemctl restart apache2

Regular backups protect against data loss and enable smooth recovery in case of system failures.

Ensuring Data Accuracy and Integrity

Maintaining **data accuracy and integrity** is crucial for generating meaningful reports. Here are some best practices:

- **Clean Up Duplicates:** Regularly check for and merge duplicate records.
- **Monitor Item Statuses:** Ensure accurate status updates for borrowed, lost, or withdrawn items.
- **Review Patron Records:** Periodically update patron information to avoid outdated or incorrect entries.
- **Audit Reports:** Review reports for errors and discrepancies, and correct them promptly.

Following these practices ensures that reports reflect the true state of library operations.

Illustration of Reports Module in Sequential steps

Figure 1: Reports)

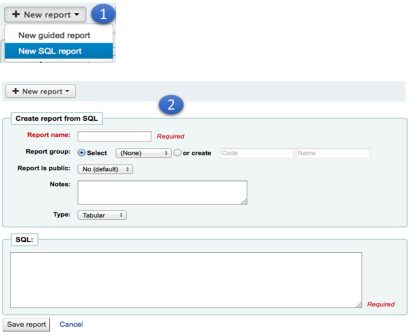
Reports

- To add your query, click the link to '***New SQL Report***' on the main reports module or the 'New report' button at the top of the 'Saved reports' page.

  Reports>New report>New SQL Report

- To find reports written by other Koha users, visit the Koha wiki: http://wiki.koha-community.org/wiki/SQL_Reports_Library

- Saved Reports>Select Report>Click Run



Conclusion

Koha's **Reports and Data Management** module provides powerful tools for generating insights into library operations. Whether using predefined reports or creating custom SQL queries, librarians can make data-driven decisions to improve services. Scheduling reports and maintaining data integrity further enhance the value of reporting.

In the next chapter, we will explore **Koha's integration with digital libraries and open access resources**, demonstrating how the system can expand access to electronic collections and hybrid library services.

Chapter 9: Koha for Digital Libraries and Open Access Resources

With the growing shift toward digital resources, libraries increasingly integrate **electronic content and open access (OA) materials** alongside their physical collections. Koha ILMS supports this transformation by providing tools to manage hybrid collections, including digital books, e-journals, and institutional repositories. This chapter explores how Koha can be integrated with digital libraries and linked to open access resources, expanding the library's reach and ensuring seamless access to knowledge.

Integration with Digital Libraries and Repositories

Koha can manage **e-books, digital documents, and multimedia files** within its catalog by linking to repositories or hosting content on local servers. Additionally, institutional repositories containing theses, research papers, and datasets can be indexed within Koha.

Adding Digital Content to Koha

1. **Catalog the Resource:**
    - Go to **Cataloging > New Record**.
    - Create a bibliographic record for the digital content (e.g., e-book, research paper).
2. **Link the Digital File or URL:**

- In the **856 field** of the MARC record, add the URL or a link to the file.
  - Example: 856 |u http://repository.university.edu/document/1234

3. **Save and Verify:**
   - Check the OPAC to ensure the resource is accessible through the record.

By linking digital resources, users can **access content directly from the OPAC** without requiring additional search systems.

Managing eBooks and Digital Collections

Koha supports **eBook collections** by linking to external eBook providers or hosting them on local servers.

Integration with eBook Providers:

1. Add eBook metadata (title, author, ISBN) into Koha's catalog.
2. Use the **856 MARC field** to provide the link to the eBook or external platform (e.g., OverDrive, ProQuest).
3. Configure OPAC to display eBook-specific icons or notices to indicate digital availability.

This setup allows patrons to browse and borrow eBooks seamlessly from within the library catalog.

Incorporating Open Access Resources

Libraries can enhance access to knowledge by including **open access (OA) materials** in their collections. Koha

supports integration with major OA repositories and directories.

Steps to Link Open Access Resources:

1. **Identify Repositories:** Use trusted OA sources like:
    - **Directory of Open Access Journals (DOAJ)**
    - **OpenDOAR** (Directory of Open Access Repositories)
    - **PubMed Central**

2. **Import Metadata:**
   Use the **Z39.50 protocol** or **SRU** service to import records from OA repositories.

3. **Add Links in MARC Records:**
   Include the **URL to the OA content** in the 856 field of the MARC record.

This enables patrons to access a wide range of **OA research papers and e-journals** through the OPAC, supporting open access initiatives.

Linking Koha with Institutional Repositories

Institutional repositories play a crucial role in preserving and showcasing academic output, including **theses, dissertations, and publications**. Koha can index these collections for easy access.

Integration with DSpace or Tainacan:

1. **Export Metadata** from the repository in MARCXML format.

2. **Import the Records into Koha:**
   Use the **Tools > Stage MARC Records for Import** option to upload metadata.
3. **Link Records with Repository URLs:**
   Ensure each record points to the original item in the repository using the **856 field**.

This integration offers a **unified search interface**, giving patrons access to both physical and digital collections.

Using Koha for Hybrid Libraries

Koha is well-suited for **hybrid libraries**, managing both physical and electronic resources under one interface. This hybrid model ensures patrons can seamlessly switch between formats based on availability and preference.

Configuring Hybrid Library Services:

1. Use **item types** (e.g., Book, eBook) to differentiate between physical and digital content.
2. Apply **circulation rules** specific to e-resources, such as restricting access to in-house or institutional users.
3. Enable **faceted browsing** on the OPAC to filter results by format, such as physical or digital items.

Hybrid libraries meet the evolving needs of users by offering flexibility and comprehensive access to information.

Integrating APIs for Real-Time Data Access

Koha supports integration with **external APIs**, enabling libraries to access real-time data from third-party systems or repositories. This functionality is valuable when

managing subscription-based services or linking to discovery platforms.

Example: Integration with Google Books API

1. **Enable API Access:**
   Register for an API key on the Google Books API console.
2. **Modify OPAC Settings:**
   Add code to display book covers and metadata directly from Google Books.
3. **Test the Integration:**
   Verify that book covers and additional metadata appear in the OPAC.

APIs enhance the OPAC's capabilities, providing patrons with enriched content and real-time information.

Benefits of Digital and OA Integration

Integrating **digital collections** and **open access resources** with Koha offers several advantages:

- **Enhanced Access:** Patrons can access physical and digital resources in a single search.
- **Cost Savings:** Libraries reduce acquisition costs by leveraging free OA materials.
- **User Satisfaction:** Patrons enjoy a seamless and modern library experience with access to digital content.
- **Increased Visibility:** Academic institutions can showcase their research output through integrated repositories.

Conclusion

Koha's ability to manage **digital resources, open access content, and hybrid library collections** makes it a powerful tool for modern libraries. By linking with external repositories and using APIs, libraries can enhance access to knowledge and meet the evolving needs of their users. This integration not only improves operational efficiency but also aligns with global trends toward open access and digital scholarship.

In the next chapter, we will explore **troubleshooting common issues and best practices** to ensure smooth operations and optimal performance in Koha.

Chapter 10: Troubleshooting and Best Practices in Koha

Even with a well-configured Koha system, issues may arise from time to time. This chapter covers **common errors and their solutions**, **performance optimization tips**, and essential **security practices** to keep your Koha instance running smoothly. We also provide best practices for maintenance and operations, ensuring your library benefits from Koha's full potential.

Common Errors and How to Fix Them

1. Koha Interface Not Accessible

- **Issue:** The OPAC or staff interface doesn't load.
- **Cause:** Apache server may not be running or configured correctly.
- **Solution:**
    1. Check if Apache is running:

       bash

       sudo systemctl status apache2

    2. If not, restart the service:

       bash

       sudo systemctl restart apache2

3. Verify the domain or IP configuration in koha-sites.conf.

2. Login Issues for Staff or Patrons

- **Issue:** Users cannot log in to the staff interface or OPAC.
- **Cause:** Incorrect password or account suspension.
- **Solution:**
    1. Reset the password:

       bash

       sudo koha-passwd library

    2. Check if the user account is active under **Patrons > Manage Users**.

3. Email Notifications Not Working

- **Issue:** Patrons do not receive overdue notices or hold alerts.
- **Cause:** SMTP settings not configured correctly.
- **Solution:**
    1. Go to **Administration > System Preferences > Email**.
    2. Ensure the **SMTP server** is properly configured.
    3. Test email delivery using an internal message to a known user.

4. Records Not Displaying in OPAC

- **Issue:** Items added to the catalog do not appear on the OPAC.

- **Cause:** MARC records may not be properly indexed.
- **Solution:**
    1. Run the following command to rebuild the Zebra index:

       bash

       sudo koha-rebuild-zebra -v -f library

    2. Verify the item's status (e.g., available or checked out).

Performance Optimization Tips

To ensure Koha performs efficiently, especially for libraries with large collections, follow these **optimization practices**:

1. **Optimize the Database:**
    - Regularly run the following command to optimize the MySQL or MariaDB database:

      bash

      sudo mysqlcheck -o koha_library

2. **Use a Dedicated Server:**
    - If your library has a large catalog, consider hosting Koha on a **dedicated server** or using a cloud-based solution.

3. **Enable Caching:**

- Use caching mechanisms like **Memcached** to reduce database load and improve response times.

4. **Monitor System Logs:**
   - Regularly review logs in /var/log/koha to detect and resolve errors early.

Security Best Practices

Libraries handle sensitive patron data, making **security** a top priority. Follow these best practices to secure your Koha instance:

1. **Use HTTPS:**
   - Install an **SSL certificate** to encrypt communications between the server and users.

     bash

     sudo certbot --apache -d your_domain

2. **Limit User Permissions:**
   - Assign roles carefully to limit access to sensitive areas of the system.

3. **Regular Backups:**
   - Schedule automatic backups of your database and configuration files.

4. **Keep Koha Updated:**
   - Regularly update Koha to the latest version to ensure security patches are applied:

     bash

```
sudo apt update && sudo apt upgrade koha-common
```

Regular Maintenance Checklist

Implement a **maintenance routine** to keep your Koha system healthy and reliable.

1. **Daily Tasks:**
    - Review system logs for errors.
    - Verify email notifications are functioning.
2. **Weekly Tasks:**
    - Rebuild the Zebra index if needed.
    - Check for software updates and apply them.
3. **Monthly Tasks:**
    - Run database optimization.
    - Perform a full system backup.
4. **Annual Tasks:**
    - Review circulation rules and user roles.
    - Clean up old or inactive patron accounts.

Best Practices for Koha Operations

1. **Train Staff Regularly:**
    - Conduct regular training sessions to keep staff updated on new features and workflows in Koha.
2. **Engage with the Koha Community:**

- Join forums and mailing lists to stay informed about best practices and new developments.

3. **Document Procedures:**
   - Maintain an internal knowledge base with instructions for common tasks and troubleshooting steps.

4. **Monitor Usage Trends:**
   - Use **reports** to track usage patterns and adjust library services accordingly.

Community Support and Documentation

Koha's strength lies in its **global community** of developers and users. If you encounter issues beyond your expertise, there are several ways to seek help:

1. **Koha Wiki:**
   - Comprehensive documentation is available at Koha Community Wiki.

2. **Mailing Lists:**
   - Join Koha's mailing lists for technical discussions and updates.

3. **Koha IRC Channel:**
   - Get real-time help from Koha experts through the IRC channel.

4. **Service Providers:**
   - Consider partnering with a **Koha support provider** for maintenance and troubleshooting assistance.

Conclusion

This chapter covered the **troubleshooting of common issues**, **performance optimization tips**, and **best practices** for maintaining a reliable Koha system. Regular maintenance, careful configuration, and adherence to security practices ensure your library operations remain smooth and secure. Leveraging Koha's community and support network can further enhance the system's effectiveness.

In the next chapter, we will explore **migration to Koha ILMS**, guiding you through the process of transitioning from a legacy system to Koha.

Chapter 11: Migration to Koha ILMS

Migrating from a legacy library management system to **Koha ILMS** requires careful planning, preparation, and execution to ensure a smooth transition. This chapter provides a step-by-step guide to the **migration process**, covering data mapping, import tools, and testing strategies to minimize disruption.

Planning for Migration

Before starting the migration, it is essential to develop a clear **migration plan**. The key steps in this phase include:

1. **Evaluate Current Data:**
    - Identify the data to be migrated (e.g., bibliographic records, patron information, transaction history).
    - Clean the data by correcting errors, merging duplicates, and ensuring completeness.

2. **Determine Data Mapping:**
    - Compare the structure of the old system with Koha's fields and **map data accordingly**.
    - Ensure MARC21 compliance for bibliographic data.

3. **Create a Migration Timeline:**
    - Plan the migration during a low-activity period (e.g., between semesters or during holidays).
    - Allocate time for **testing and validation**.

4. **Backup Old System Data:**

- Create a **full backup** of the legacy system to prevent data loss.

Extracting Data from the Legacy System

The first technical step involves **exporting data** from the old system. Depending on the system, data might be extracted in formats such as **CSV, MARC, XML, or SQL**.

Common Data Types to Extract:

1. **Bibliographic Records:**
   Export MARC or MARCXML files.
2. **Patron Records:**
   Export in **CSV** with fields like name, barcode, contact, and category.
3. **Transaction Data:**
   Extract data on loans, returns, fines, and reservations.

Preparing Data for Import into Koha

Once the data is extracted, it must be formatted to match **Koha's data structure**.

Cleaning and Validating Data:

1. **Check for Duplicates:**
   Ensure there are no duplicate records in the bibliographic and patron datasets.
2. **Verify Mandatory Fields:**
   Ensure that required fields like **title, author, and barcode** are filled.

3. **Convert Non-MARC Data to MARC21:**
   Use tools like **MarcEdit** to convert non-MARC data into MARC21 format.

Importing Data into Koha

Koha provides tools to **import data in bulk**, ensuring a quick and efficient migration.

1. Importing Bibliographic Records:

1. Go to **Tools > Stage MARC Records for Import**.
2. Upload the **MARC or MARCXML file** containing the bibliographic records.
3. Verify the **field mappings**.
4. Click **Import** to complete the process.

2. Importing Patron Records:

1. Go to **Tools > Patron Import**.
2. Upload the **CSV file** with patron information.
3. Map the fields (e.g., Name, Barcode, Email).
4. Review and confirm the import.

3. Importing Transaction Data:

1. Use SQL queries to upload **loans, returns, and fines** into Koha's database.
2. Verify the data integrity by running sample transactions.

Testing and Validation of Imported Data

After importing data into Koha, thorough **testing and validation** are essential to ensure all records are accurate and complete.

Testing Checklist:

1. **Bibliographic Data:**
    - Search for a random selection of records in the OPAC.
    - Verify that all metadata (title, author, subject) displays correctly.

2. **Patron Records:**
    - Confirm that all patron details, including **barcodes and contact information**, are accurate.
    - Test logging in with a few patron accounts on the OPAC.

3. **Transaction Data:**
    - Check if loan histories and outstanding fines were migrated accurately.
    - Test issuing and returning books using migrated patron and item data.

Transitioning to Koha

Once the data is successfully imported and validated, the library is ready to **transition fully to Koha**.

Steps for a Smooth Transition:

1. **Train Library Staff:**
   Provide hands-on training for librarians on how to use Koha's modules.
2. **Communicate with Patrons:**
   Notify patrons about the new system, including any changes to login procedures or circulation rules.
3. **Set a Go-Live Date:**
   Plan the go-live date during a low-activity period to minimize disruption.

Post-Migration Support and Troubleshooting

After the migration, monitor the system closely to identify and resolve any issues promptly.

Common Post-Migration Issues:

1. **Missing Records:**
   Use SQL queries to identify gaps and re-import any missing data.
2. **Login Issues for Patrons:**
   Ensure all barcodes and passwords were imported correctly.
3. **Circulation Rule Conflicts:**
   Review and adjust circulation rules if transactions don't follow expected policies.

Regular Backup and Recovery Plan

After migration, it is essential to implement a **backup and recovery strategy** to protect your data.

Steps to Set Up Automated Backups:

1. Create a script to **back up the Koha database**:

   bash

   sudo mysqldump -u root -p koha_library > koha_backup.sql

2. Schedule the backup using a **cron job**:

   bash

   0 2 * * * /path/to/backup_script.sh

Regular backups ensure that the library can **restore data quickly** in case of unexpected failures.

Benefits of Migrating to Koha ILMS

1. **Cost-Effective:**
   Koha's open-source nature eliminates the need for expensive licenses.
2. **Customizable:**
   Libraries can tailor the system to their specific needs.
3. **Community Support:**
   The Koha community provides continuous updates and support.
4. **Improved Patron Experience:**
   Koha's OPAC and self-service features enhance user satisfaction.

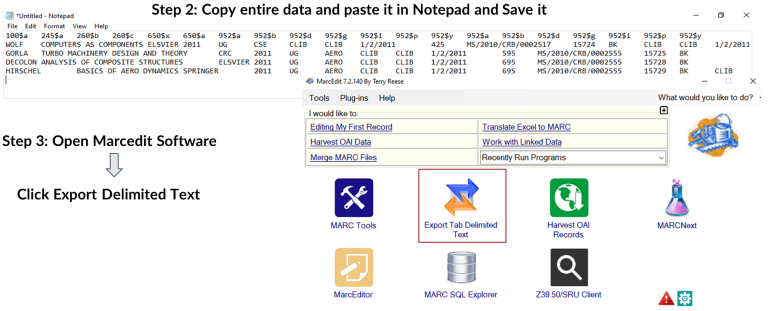
Illustration of Data Conversion with MARCEDIT in Sequential steps

Figure 1:

Step 1: Prepare Excel Sheet with your data as shown below

100$a	245$a	260$b	260$c	650$x	650$a	952$a	952$b	952$d	952$g	952$i	952$p	952$y	952$a	952$b	952$d	952$g	952$i	952$p	952$y
WOLF	COMPUTE	ELSVIER	2011	UG	CSE	CLIB	CLIB	1/2/2011		425	MS/2010/	15724	BK	CLIB	CLIB	1/2/2011		595	MS/2010/	15726	BK
GORLA	TURBO M	CRC	2011	UG	AERO	CLIB	CLIB	1/2/2011		595	MS/2010/	15725	BK								
DECOLON	ANALYSIS	ELSVIER	2011	UG	AERO	CLIB	CLIB	1/2/2011		695	MS/2010/	15728	BK								
HIRSCHEL	BASICS OF	SPRINGER	2011	UG	AERO	CLIB	CLIB	1/2/2011		695	MS/2010/	15729	BK	CLIB	CLIB	1/2/2011		695	MS/2010/	15730	BK

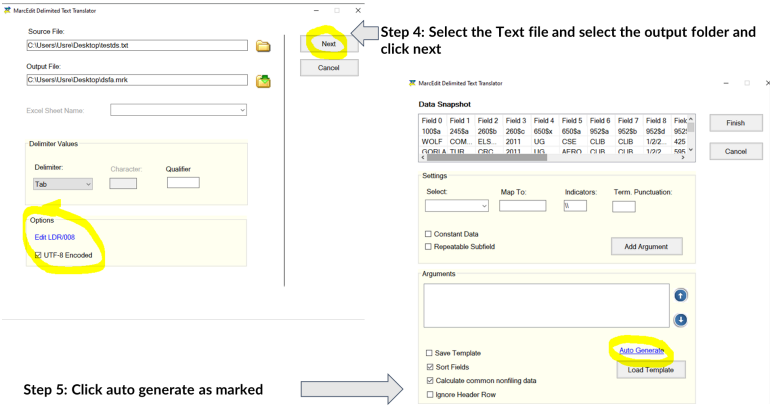
Step 2: Copy entire data and paste it in Notepad and Save it


*Untitled - Notepad
File Edit Format View Help
100$a 245$a 260$b 260$c 650$x 650$a 952$a 952$b 952$d 952$g 952$i 952$p 952$y 952$a 952$b 952$d 952$g 952$i 952$p 952$y
WOLF COMPUTERS AS COMPONENTS ELSVIER 2011 UG CSE CLIB CLIB 1/2/2011 425 MS/2010/CRB/0002517 15724 BK CLIB CLIB 1/2/2011
GORLA TURBO MACHINERY DESIGN AND THEORY CRC 2011 UG AERO CLIB CLIB 1/2/2011 595 MS/2010/CRB/0002555 15725 BK
DECOLON ANALYSIS OF COMPOSITE STRUCTURES ELSVIER 2011 UG AERO CLIB CLIB 1/2/2011 695 MS/2010/CRB/0002555 15728 BK
HIRSCHEL BASICS OF AERO DYNAMICS SPRINGER 2011 UG AERO CLIB CLIB 1/2/2011 695 MS/2010/CRB/0002555 15729 BK CLIB
MarcEdit 7.2.140 By Terry Reese
Tools Plug-ins Help
What would you like to do?
I would like to:
Editing My First Record
Translate Excel to MARC
Harvest OAI Data
Work with Linked Data
Merge MARC Files
Recently Run Programs
MARC Tools
Export Tab Delimited Text
Harvest OAI Records
MARCNext
MarcEditor
MARC SQL Explorer
Z39.50/SRU Client

Step 3: Open Marcedit Software

Click Export Delimited Text

Figure 1a:



Step 5: Click auto generate as marked

Figure 1b

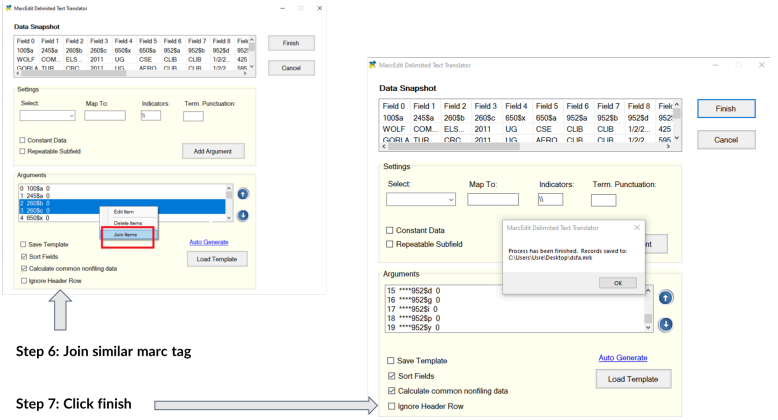


Figure 1c:

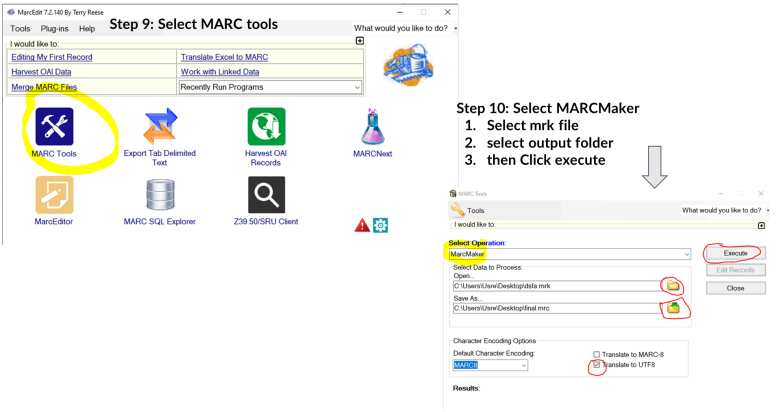


Figure 1d:

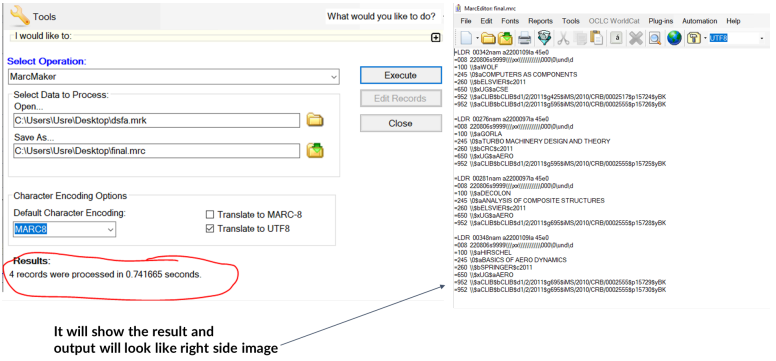


Figure 1e:

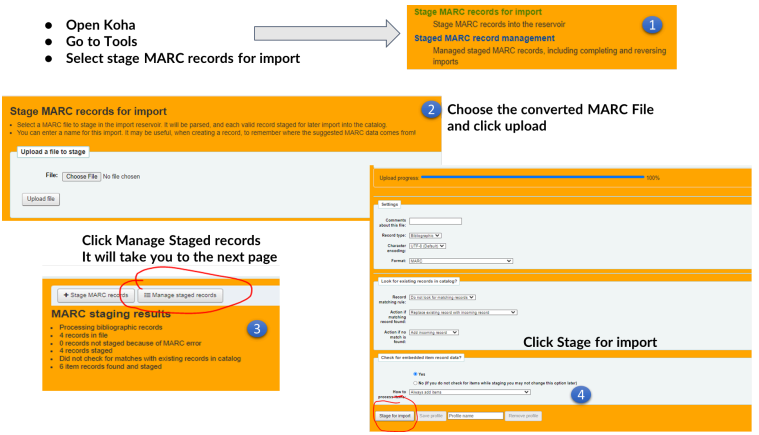
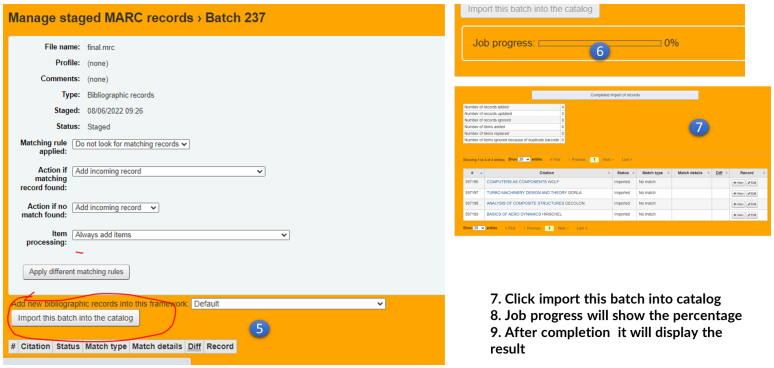

Open Koha
Go to Tools
Select stage MARC records for import
Stage MARC records for import
Stage MARC records into the reservoir
Staged MARC record management
Managed staged MARC records, including completing and reversing imports
Stage MARC records for import
Choose the converted MARC File and click upload
Upload a file to stage
Click Manage Staged records
It will take you to the next page
MARC staging results
Processing bibliographic records
4 records in file
0 records not staged because of MARC error
4 records staged
Did not check for matches with existing records in catalog
6 item records found and staged
Click Stage for import

Figure 1f:


Manage staged MARC records › Batch 237
File name: final.mrc
Profile: (none)
Comments: (none)
Type: Bibliographic records
Staged: 08/06/2022 09:26
Status: Staged
Matching rule applied: Do not look for matching records
Action if matching record found: Add incoming record
Action if no match found: Add incoming record
Item processing: Always add items
Apply different matching rules
Add new bibliographic records into this framework: Default
Import this batch into the catalog
5
Citation Status Match type Match details Diff Record
Import this batch into the catalog
Job progress: 0%
6
7

7. Click import this batch into catalog
8. Job progress will show the percentage
9. After completion it will display the result

Conclusion

Migrating to Koha ILMS requires careful planning, data preparation, and testing, but the benefits are significant. This chapter provided a comprehensive guide to the migration process, from data extraction to final transition. With **proper staff training and post-migration support**, libraries can ensure a smooth transition to Koha, unlocking its full potential.

In the next and final chapter, we will explore the **future developments and trends** in library automation, highlighting the innovations that will shape the next generation of library management systems.

Chapter 12: Future Developments and Conclusion

As libraries evolve to meet the changing needs of users, **library management systems (LMS)** like Koha continue to innovate. Future developments in Koha and library technology as a whole will focus on enhancing **user experience, interoperability, digital inclusion, and data-driven management**. In this chapter, we explore emerging trends, anticipated features, and the future of library automation with Koha ILMS at the forefront.

1. Upcoming Features in Koha ILMS

Koha is an actively developed open-source project, with new features and improvements being introduced regularly. Some of the anticipated future developments include:

1. **Enhanced Mobile-Friendly Interfaces:**
    - More responsive design updates to the **staff interface** and OPAC, ensuring an optimal user experience on smartphones and tablets.

2. **Improved Discovery Layer Integration:**
    - Seamless connection to **discovery tools** like VuFind or EDS, allowing patrons to search across multiple databases and repositories from a single interface.

3. **AI-Powered Cataloging Assistance:**
    - Development of **AI tools** for cataloging to automate metadata extraction and

classification, reducing the time required for cataloging large collections.

4. **Advanced Analytics and Visualization:**
    - New reporting modules offering **visual dashboards** to track key metrics like circulation trends, overdue fines, and popular collections.

5. **Linked Data and Semantic Web Integration:**
    - Koha is moving toward **linked data frameworks**, enabling richer connections between library catalogs and external datasets, enhancing information discovery.

6. **Multi-Factor Authentication (MFA):**
    - Strengthening security with MFA options for both **patrons and staff**, improving protection against unauthorized access.

2. Active Community and Global Usage of Koha

Koha's strength lies in its **global community** of developers, librarians, and service providers who contribute to its development and provide mutual support. This collaborative approach ensures that Koha remains:

- **Scalable and adaptable**: Used by libraries of various sizes, from small community libraries to large academic consortia.
- **Continuously updated**: Regular releases with new features, bug fixes, and security patches.

- **Inclusive and multilingual**: Available in multiple languages, supporting libraries across diverse regions.

Participating in the Koha community helps libraries **stay updated** on new trends, share best practices, and contribute to the system's future.

3. Trends Shaping the Future of Library Management Systems

1. **Open Access and Open Data Movement:**
    - Libraries are increasingly integrating **open access resources** and contributing to **open data repositories**, empowering patrons with free and accessible information.

2. **Cloud-Based Library Management Systems:**
    - Koha and other LMS platforms are being hosted more frequently on **cloud servers**, reducing infrastructure costs and offering greater scalability.

3. **AI and Automation in Library Operations:**
    - AI technologies will continue to automate **cataloging, acquisitions, and circulation tasks**, enabling library staff to focus on user engagement and services.

4. **Hybrid Libraries and Digital Inclusion:**
    - The future of libraries will combine physical and digital collections, promoting **digital inclusion** by providing access to e-resources and bridging the digital divide.

5. **Data-Driven Decision Making:**

- Libraries will increasingly rely on **advanced analytics** and **machine learning** to make informed decisions about collection development, budgeting, and user services.

4. Case Studies: Successful Implementations of Koha

Many libraries worldwide have successfully adopted Koha, reaping benefits from its open-source nature and flexibility. Some notable case studies include:

- **Public Libraries in France:**
  Large-scale Koha installations across public libraries, enabling multi-branch management and centralized cataloging.

- **Academic Consortia in India:**
  Indian universities use Koha to manage hybrid collections, integrating **e-journals, theses repositories, and print collections** into a unified system.

- **African Libraries Network:**
  Libraries in various African countries leverage Koha's **multilingual support** and **cost-effectiveness**, empowering underserved communities with access to knowledge.

These examples demonstrate Koha's adaptability to different environments and its potential to support diverse library needs.

5. Koha's Impact on Library Automation

Since its inception, **Koha ILMS** has transformed the way libraries operate by promoting **open-source collaboration** and **community-driven innovation**. Its adoption by thousands of libraries globally has proven that **affordable, flexible, and efficient** library management is achievable through open-source technology.

6. Key Impacts:

- **Cost Savings:** Libraries avoid costly proprietary licenses and can reinvest savings into collections and services.
- **User Empowerment:** Patrons enjoy self-service features and access to **digital and open access content** through the OPAC.
- **Global Collaboration:** The Koha community promotes **shared knowledge and best practices**, advancing library automation worldwide.

Conclusion

The **future of Koha ILMS** is bright, driven by a combination of emerging technologies, community engagement, and global trends in library management. As libraries continue to evolve, Koha will play a vital role in supporting **innovation, digital inclusion, and seamless access to knowledge**. Its **scalable, adaptable, and open-source** framework ensures that libraries of all types can benefit from modern automation without being constrained by proprietary solutions.

This book has provided a comprehensive guide to **installing, configuring, and using Koha ILMS** effectively. From setting up basic operations to managing digital and

open access resources, Koha offers a powerful platform to meet the needs of today's libraries. With a focus on **troubleshooting, best practices, and future developments**, this guide empowers libraries to fully leverage Koha's potential and adapt to the evolving landscape of information management.

Whether you are managing a small community library or a large academic institution, **Koha ILMS offers the tools, flexibility, and support** to meet your library's current and future needs. Embrace Koha, join the vibrant community, and contribute to the future of **library automation**.

Suggested Next Steps for Readers

1. **Engage with the Koha Community:**
   Join forums, mailing lists, and local Koha user groups to keep up with the latest developments and share experiences.
2. **Participate in Koha Conferences and Workshops:**
   These events offer great networking opportunities and provide insights into advanced Koha functionalities.
3. **Explore Advanced Customization:**
   Dive deeper into APIs, custom reports, or plugin development to further enhance your Koha system.
4. **Contribute to Koha's Development:**
   Report bugs, contribute code, or suggest improvements, and become an active part of the global open-source movement.

Thank you for embarking on this journey to master **Koha ILMS**. With this guide in hand, your library is now ready to **thrive in the digital era**, providing seamless services and making a lasting impact on your community of users.

Unlock the full potential of your library with Koha, the world's first free and open-source Integrated Library System (ILS). This beginner-friendly guide provides a clear, practical roadmap to setting up, customizing, and efficiently managing library operations using Koha. Whether you're a librarian, library science student, or an enthusiast stepping into digital library management, this book simplifies complex processes with step-by-step instructions, screenshots, and real-world tips. Start your journey toward smarter, more efficient library services today!